PERMIT #69734
PLACE ID #3532

PERMITTEE:	**Arizona Electric Power Cooperative, Inc. (AEPCO)**
FACILITY:	**Apache Generating Station**
PERMIT TYPE	**Class I Air Quality Permit**
DATE ISSUED:	**draft**
EXPIRY DATE:	**draft**

SUMMARY

This Class I operating permit is issued to Arizona Electric Power Cooperative, Inc. (AEPCO), the Permittee, for the continued operation of the Apache Generating Station. The facility is located approximately 3 miles southeast of the town of Cochise in the Willcox Basin in Cochise County, Arizona. This is a renewal of Permit # 55412.

The potential emission rates of the following pollutants are greater than 100 tons per year: particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide, and volatile organic compounds. Apache Generating Station operations are subject to the Acid Rain Program of the Clean Air Act. This permit is issued in accordance with Title V of the Clean Air Act, and Title 49, Chapter 3 of the Arizona Revised Statutes.

This permit is issued in accordance with Arizona Revised Statutes (ARS) 49-426. It contains requirements from Title 18, Chapter 2 of the A.A.C. and Title 40 of the Code of Federal Regulations. All definitions, terms, and conditions used in this permit conform to those in the Arizona Administrative Code R18-2-101 et. seq. (A.A.C.) and Title 40 of the Code of Federal Regulations (CFR), except as otherwise defined in this permit.

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ATTACHMENT "A": GENERAL PROVISIONS

I. PERMIT EXPIRATION AND RENEWAL

A. This permit is valid for a period of five (5) years from the date of issuance.
[ARS § 49-426.F, A.A.C. R18-2-306.A.1]

B. The Permittee shall submit an application for renewal of this permit at least six (6) months, but not more than eighteen (18) months, prior to the date of permit expiration.
[ARS § 49-426.F, A.A.C. R18-2-304.D.2]

II. COMPLIANCE WITH PERMIT CONDITIONS

A. The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona Revised Statutes (A.R.S.) Title 49, Chapter 3, and the air quality rules under Title 18, Chapter 2 of the Arizona Administrative Code. Any permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
[A.A.C. R18-2-306.A.8.a]

B. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
[A.A.C. R18-2-306.A.8.b]

III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

A. The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[A.A.C. R18-2-306.A.8.c]

B. The permit shall be reopened and revised under any of the following circumstances:

1. Additional applicable requirements under the Clean Air Act become applicable to the Class I source. Such a reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of it terms and conditions has been extended pursuant to A.A.C. R18-2-322.B. Any permit revision required pursuant to this subparagraph shall comply with the provisions in A.A.C. R18-2-322 for permit renewal and shall reset the five-year permit term;
[A.A.C. R18-2-321.A.1.a]

2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit;

[A.A.C. R18-2-321.A.1.b]

3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; and

[A.A.C. R18-2-321.A.1.c]

4. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.

[A.A.C. R18-2-321.A.1.d]

C. Proceedings to reopen and issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Condition III.B.1, affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in Condition III.B.1 above shall not result in a resetting of the five-year permit term.

[A.A.C. R18-2-321.A.2]

IV. POSTING OF PERMIT

A. The Permittee shall post this permit or a certificate of permit issuance at the facility in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:

1. Current permit number; or

2. Serial number or other equipment identification number (equipment ID number) that is also listed in the permit to identify that piece of equipment.

[A.A.C. R18-2-315.A]

B. A copy of the complete permit shall be kept on site.

[A.A.C. R18-2-315.B]

V. FEE PAYMENT

The Permittee shall pay fees to the Director pursuant to ARS § 49-426(E) and A.A.C. R18-2-326.

[A.A.C. R18-2-306.A.9 and -326]

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE

A. The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31st or ninety (90) days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.

[A.A.C. R18-2-327.A]

B. The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.B.

[A.A.C. R18-2-327.B]

VII. COMPLIANCE CERTIFICATION

A. The Permittee shall submit a compliance certification to the Director semiannually, which

describes the compliance status of the source with respect to each permit condition. The first certification shall be submitted no later than May 15th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than November 15th, and shall report the compliance status of the source during the period between April 1st and September 30th of the current year.

[A.A.C. R18-2-309.2.a]

B. The compliance certifications shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification;

[A.A.C. R18-2-309.2.c.i]

2. Identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the certification period,

[A.A.C. R18-2-309.2c.ii]

3. Status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in Condition VII.B.2 above. The certifications shall identify each deviation and take it into account for consideration in the compliance certification;

[A.A.C. R18-2-309.2.c.iii]

4. For emission units subject to 40 CFR Part 64, the certification shall also identify as possible exceptions to compliance any period during which compliance is required and in which an excursion or exceedance defined under 40 CFR Part 64 occurred;

[A.A.C. R18-2-309.2.c.iii]

5. All instances of deviations from permit requirements reported pursuant to Condition XII.B; and

6. Other facts the Director may require to determine the compliance status of the source.

[A.A.C. R18-2-309.2.a, -309.2.c-d, and -309.5.d]

C. A copy of all compliance certifications shall also be submitted to the EPA Administrator.

D. If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Condition VII.A above.

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

Any document required to be submitted by this permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[A.A.C. R18-2-304.I]

IX. INSPECTION AND ENTRY

Upon presentation of proper credentials, the Permittee shall allow the Director or the authorized representative of the Director to:

A. Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;
[A.A.C. R18-2-309.4.a]

B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
[A.A.C. R18-2-309.4.b]

C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
[A.A.C. R18-2-309.4.c]

D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
[A.A.C. R18-2-309.4.d]

E. Record any inspection by use of written, electronic, magnetic and photographic media.
[A.A.C. R18-2-309.4.e]

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD

If this source becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Act, then the Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.
[A.A.C. R18-2-304.D.3]

XI. ACCIDENTAL RELEASE PROGRAM

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.
[40 CFR Part 68]

XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting
[A.A.C. R18-2-310.01.A, B, and C]

1. Excess emissions shall be reported as follows:

   a. The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:

      (1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XII.A.1.b below.

(2) Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XII.A.1.a.(1) above.

[A.A.C. R18-2-310.01.A]

b. The report shall contain the following information:

(1) Identity of each stack or other emission point where the excess emissions occurred;

[A.A.C. R18-2-310.01.B.1]

(2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

[A.A.C. R18-2-310.01.B.2]

(3) Date, time and duration, or expected duration, of the excess emissions;

[A.A.C. R18-2-310.01.B.3]

(4) Identity of the equipment from which the excess emissions emanated;

[A.A.C. R18-2-310.01.B.4]

(5) Nature and cause of such emissions;

[A.A.C. R18-2-310.01.B.5]

(6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions;

[A.A.C. R18-2-310.01.B.6]

(7) Steps taken to limit the excess emissions; and

[A.A.C. R18-2-310.01.B.7]

(8) If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

[A.A.C. R18-2-310.01.B.8]

2. In the case of continuous or recurring excess emissions, the notification requirements shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XII.A.1 above.

[A.A.C. R18-2-310.01.C]

B. Permit Deviations Reporting

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the applicable

requirement contains a definition of prompt or otherwise specifies a timeframe for reporting deviations, that definition or timeframe shall govern. Where the applicable requirement does not address the timeframe for reporting deviations, the Permittee shall submit reports of deviations according to the following schedule:

1. Notice that complies with A.A.C. R18-2-310.01.A is prompt for deviations that constitute excess emissions;

[A.A.C. R18-2-306.A.5.b.i]

2. Notice regarding upset conditions, which are defined as malfunctions or breakdowns of pollution control equipment, continuous emissions monitoring systems (CEMS), or continuous opacity monitoring systems (COMS) that are submitted within two working days of discovery, shall be considered prompt; and

[A.A.C. R18-2-306.A.5.b.ii]

3. Except as provided in Conditions XII.B.1 and 2 above, notice that complies with Condition I.C of Attachment "B" is prompt for all other types of deviations. Any such deviations that occur during the semi-annual reporting period shall be clearly identified in the report required by Condition I.C of Attachment "B," concurrent with the semi-annual compliance certification required by Condition VII of Attachment "A".

[A.A.C. R18-2-306.A.5.a]

C. Emergency Provision

1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[A.A.C. R18-2-306.E.1]

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if Condition XII.C.3 is met.

[A.A.C. R18-2-306.E.2]

3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

[A.A.C. R18-2-306.E.3]

a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;

[A.A.C. R18-2-306.E.3.a]

b. The permitted facility was being properly operated at the time of the emergency;

[A.A.C. R18-2-306.E.3.b]

c. During the period of the emergency, the Permittee took all reasonable

steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

[A.A.C. R18-2-306.E.3.c]

d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

[A.A.C. R18-2-306.E.3.d]

4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

[A.A.C. R18-2-306.E.4]

5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[A.A.C. R18-2-306.E.5]

D. Compliance Schedule

For any excess emission or permit deviation that cannot be corrected within 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

[ARS § 49-426.I.3]

E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown

1. Applicability

A.A.C. R18-2-310 establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

a. Promulgated pursuant to Sections 111 or 112 of the Act;

[A.A.C. R18-2-310.A.1]

b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;

[A.A.C. R18-2-310.A.2]

c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;

[A.A.C. R18-2-310.A.3]

d. Contained in A.A.C. R18-2-715.F; or

[A.A.C. R18-2-310.A.4]

e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5.

[A.A.C. R18-2-310.A.5]

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission limitation are due to a malfunction, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

[A.A.C. R18-2-310.B]

a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;

[A.A.C. R18-2-310.B.1]

b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

[A.A.C. R18-2-310.B.2]

c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;

[A.A.C. R18-2-310.B.3]

d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

[A.A.C. R18-2-310.B.4]

e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

[A.A.C. R18-2-310.B.5]

f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

[A.A.C. R18-2-310.B.6]

g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

[A.A.C. R18-2-310.B.7]

h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;

[A.A.C. R18-2-310.B.8]

i. All emissions monitoring systems were kept in operation if at all practicable; and

[A.A.C. R18-2-310.B.9]

j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.

[A.A.C. R18-2-310.B.10]

3. Affirmative Defense for Startup and Shutdown

a. Except as provided in Condition XII.E.3.b, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

[A.A.C. R18-2-310.C.1]

(1) The excess emissions could not have been prevented through careful and prudent planning and design;

[A.A.C. R18-2-310.C.1.a]

(2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;

[A.A.C. R18-2-310.C.1.b]

(3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

[A.A.C. R18-2-310.C.1.c]

(4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

[A.A.C. R18-2-310.C.1.d]

(5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

[A.A.C. R18-2-310.C.1.e]

(6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

[A.A.C. R18-2-310.C.1.f]

(7) All emissions monitoring systems were kept in operation if at all practicable; and

[A.A.C. R18-2-310.C.1.g]

(8) Contemporaneous records documented the Permittee’s actions in response to the excess emissions.

[A.A.C. R18-2-310.C.1.h]

b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XII.E.2 above.

[A.A.C. R18-2-310.C.2]

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XII.E.2.

[A.A.C. R18-2-310.D]

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XII.E.2 or XII.E.3, the Permittee shall demonstrate, through submission of the data and information required by Condition XII.E and A.A.C. R18-2-310.01, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

[A.A.C. R18-2-310.E]

XIII. RECORDKEEPING REQUIREMENTS

A. The Permittee shall keep records of all required monitoring information including, but not limited to, the following:

[A.A.C. R18-2-306.A.4.a]

1. The date, place as defined in the permit, and time of sampling or measurements;

[A.A.C. R18-2-306.A.4.a.i]

2. The date(s) any analyses were performed;

[A.A.C. R18-2-306.A.4.a.ii]

3. The name of the company or entity that performed the analyses;

[A.A.C. R18-2-306.A.4.a.iii]

4. A description of the analytical techniques or methods used;

[A.A.C. R18-2-306.A.4.a.iv]

5. The results of analyses; and

[A.A.C. R18-2-306.A.4.a.v]

6. The operating conditions as existing at the time of sampling or measurement.

[A.A.C. R18-2-306.A.4.a.vi]

B. The Permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

[A.A.C. R18-2-306.A.4.b]

XIV. REPORTING REQUIREMENTS

The Permittee shall submit the following reports:

A. Compliance certifications in accordance with Condition VII.

[A.A.C. R18-2-306.A.5.a]

B. Excess emission; permit deviation, and emergency reports in accordance with Condition XII.

[A.A.C. R18-2-306.A.5.b]

C. Other reports required by any condition of Attachment "B".

XV. DUTY TO PROVIDE INFORMATION

A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.

[A.A.C. R18-2-304.G and -306.A.8.e]

B. If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

[A.A.C. R18-2-304.H]

XVI. PERMIT AMENDMENT OR REVISION

The Permittee shall apply for a permit amendment or revision for changes to the facility which do not qualify for a facility change without revision under Condition XVII, as follows:

A. Administrative Permit Amendment (A.A.C. R18-2-318);

[A.A.C. R18-2-318]

B. Minor Permit Revision (A.A.C. R18-2-319); and

[A.A.C. R18-2-319]

C. Significant Permit Revision (A.A.C. R18-2-320)

[A.A.C. R18-2-320]

The applicability and requirements for such action are defined in the above referenced regulations.

XVII. FACILITY CHANGE WITHOUT A PERMIT REVISION

A. The Permittee may make changes at the permitted source without a permit revision if all of the following apply:

[A.A.C. R18-2-317]

1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(24);

[A.A.C. R18-2-317.A.1]

2. The changes do not exceed the emissions allowable under the permit whether

expressed therein as a rate of emissions or in terms of total emissions;
[A.A.C. R18-2-317.A.2]

3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;
[A.A.C. R18-2-317.A.3]

4. The changes satisfy all requirements for a minor permit revision under A.A.C. R18-2-319.A;
[A.A.C. R18-2-317.A.4]

5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements; and
[A.A.C. R18-2-317.A.5]

6. The changes do not constitute a minor NSR modification.
[A.A.C. R18-2-317.A.6]

B. The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Conditions XVII.A and XVII.C of this Attachment.
[A.A.C. R18-2-317.B]

C. For each change under Conditions XVII.A and XVII.B above, a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change, as possible or, if advance notification is not practicable, as soon after the change as possible.
[A.A.C. R18-2-317.D]

D. Each notification shall include:

1. When the proposed change will occur;
[A.A.C. R18-2-317.E.1]

2. A description of the change;
[A.A.C. R18-2-317.E.2]

3. Any change in emissions of regulated air pollutants; and
[A.A.C. R18-2-317.E.3]

4. Any permit term or condition that is no longer applicable as a result of the change.
[A.A.C. R18-2-317.E.7]

E. The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section.
[A.A.C. R18-2-317.F]

F. Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under A.A.C. R18-2-306.A.11 shall not require

any prior notice under this Section.

[A.A.C. R18-2-317.G]

G. Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, do not satisfy Condition XVII.A above.

[A.A.C. R18-2-317.H]

XVIII. TESTING REQUIREMENTS

[A.A.C. R18-2-312]

A. The Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.

[A.A.C. R18-2-312.A]

B. Operational Conditions During Testing

Tests shall be conducted during operation at the maximum possible capacity of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.

[A.A.C. R18-2-312.C]

C. Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B.

[A.A.C. R18-2-312.B]

D. Test Plan

At least 14 calendar days prior to performing a test, the Permittee shall submit a test plan to the Director in accordance with the Arizona Testing Manual. This test plan must include the following:

1. Test duration;

2. Test location(s);

3. Test method(s); and

4. Source operation and other parameters that may affect test results.

[A.A.C. R18-2-312.D]

E. Stack Sampling Facilities

The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to the facility;

[A.A.C. R18-2-312.E.1]

2. Safe sampling platform(s);

[A.A.C. R18-2-312.E.2]

3. Safe access to sampling platform(s); and

[A.A.C. R18-2-312.E.3]

4. Utilities for sampling and testing equipment.

[A.A.C. R18-2-312.E.4]

F. Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

[A.A.C. R18-2-312.F]

G. Report of Final Test Results

A written report of the results of performance tests conducted pursuant to 40 CFR 63, shall be submitted to the Director within 60 days after the test is performed. A written report of other performance tests shall be submitted within 30 days after the test is performed or as otherwise provided in the Arizona Testing Manual. The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

[A.A.C. R18-2-312.A]

H. Extension of Performance Test Deadline

[A.A.C. R18-2-312.J]

For performance testing required under Condition XVIII.A above, the Permittee may request an extension to a performance test deadline due to a force majeure event as follows:

[A.A.C. R18-2-312.J]

1. If a force majeure event is about to occur, occurs, or has occurred for which the Permittee intends to assert a claim of force majeure, the Permittee shall notify the Director in writing as soon as practicable following the date the Permittee first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline. The notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the

notification shall be given as soon as practicable.

[A.A.C. R18-2-312.J.1]

2. The Permittee shall provide to the Director a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the Permittee proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure event occurs.

[A.A.C. R18-2-312.J.2]

3. The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Director. The Director shall notify the Permittee in writing of approval or disapproval of the request for an extension as soon as practicable.

[A.A.C. R18-2-312.J.3]

4. Until an extension of the performance test deadline has been approved by the Director under subsections Conditions XVIII.H.1, 2, and 3 above, the Permittee remains subject to the requirements of Condition XVII of Attachment A.

[A.A.C. R18-2-312.J.4]

5. For purposes of Condition XVIII, a "force majeure event" means an event that will be or has been caused by circumstances beyond the control of the Permittee, its contractors, or any entity controlled by the Permittee that prevents it from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the Permittee's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the Permittee.

[A.A.C. R18-2-312.J.1]

XIX. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

[A.A.C. R18-2-306.A.8.d]

XX. SEVERABILITY CLAUSE

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.

[A.A.C. R18-2-306.A.7]

XXI. PERMIT SHIELD

Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements identified in the portions of this permit subtitled "Permit Shield". The permit shield shall not apply to minor revisions pursuant to Condition XVI.B of this Attachment and any facility changes without a permit revision pursuant to Condition XVII of this Attachment.

[A.A.C. R18-2-317.F, - 320, and -325]

XXII. PROTECTION OF STRATOSPHERIC OZONE

If this source becomes subject to the provisions of 40 CFR Part 82, then the Permittee shall comply

with these provisions accordingly.

[40 CFR Part 82]

XXIII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS

For all equipment subject to a New Source Performance Standard or a National Emission Standard for Hazardous Air Pollutants, the Permittee shall comply with all applicable requirements contained in Subpart A of Title 40, Chapter 60 and Chapter 63 of the Code of Federal Regulations.

[40 CFR Part 60 and Part 63]

ATTACHMENT "B": SPECIFIC CONDITIONS

I. FACILITY-WIDE REQUIREMENTS

A. Opacity

1. Instantaneous Surveys and Six-Minute Observations

a. Instantaneous Surveys

Any instantaneous survey required by this permit shall be determined by EPA Reference Method 9 Certified Observer.

[A.A.C. R18-2-306.A.3.c]

b. Six-Minute Observations

Any six-minute observation required by this permit shall be determined by EPA Reference Method 9.

2. Monitoring, Recordkeeping, and Reporting Requirements

a. At the frequency specified in the following sections of this permit, the Permittee shall conduct an instantaneous survey of visible emissions from both process stack sources, when in operation, and fugitive dust sources.

b. If the plume on an instantaneous basis appears less than or equal to the applicable opacity standard, then the Permittee shall keep a record of the name of the observer, the date on which the instantaneous survey was made, and the results of the instantaneous survey.

c. If the plume on an instantaneous basis appears greater than the applicable opacity standard, then the Permittee shall immediately conduct a six-minute observation of the plume.

(1) If the six-minute observation of the plume is less than or equal to the applicable opacity standard, then the Permittee shall record the name of the observer, the date on which the six-minute observation was made, and the results of the six-minute observation.

(2) If the six-minute observation of the plume is greater than the applicable opacity standard, then the Permittee shall do the following:

(a) Adjust or repair the controls or equipment to reduce opacity to less than or equal to the opacity standard;

(b) Record the name of the observer, the date on which the six-minute observation was made, the results of the six-minute observation, and all corrective action taken; and

(c) Report the event as an excess emission for opacity in accordance with Condition XII.A of Attachment "A".

(d) Conduct another six-minute observation to document the effectiveness of the adjustments or repairs completed.

[A.A.C. R18-2-306.A.3.c]

B. The Permittee shall have on site or on call a person that is certified in EPA Reference Method 9.

[A.A.C. R18-2-306.A.3]

C. At the time the compliance certifications required by Section VII of Attachment "A" are submitted, the Permittee shall submit reports of all monitoring activities required by this Attachment performed in the same six month period as applies to the compliance certification period.

[A.A.C. R18-2-306.A.5.a]

D. The Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; records of emissions related maintenance performed on emission units and emission control units, and all other information required by this part recorded in a permanent form suitable for inspection. The files shall be retained for at least five years following the date of such measurements, maintenance, reports, and records. The most recent two years of data shall be kept on-site.

[40 CFR 60.7(f) and A.A.C. R18-2-306.A.4.b]

E. The Permittee shall log any change in fuel type for Steam Units 2 and 3 (ST2 and ST3), or Gas Turbines 2 and 4 (GT2 and GT4) including:

[A.A.C. R18-2-306.A.3]

1. Type of fuel change;

2. Date of the fuel change; and

3. Time of the fuel change.

II. STEAM UNITS 2 AND 3

A. Applicability

This Section applies to Steam Units 2 and 3 (ST2 and ST3), both wall-fired steam electric generators. Requirements pertaining to electrostatic precipitator (ESP), Sulfur Dioxide Absorption System (SDAS) will apply to ST3 at all times and to ST2 only when coal is used as fuel under emergency provisions in accordance with Section III.E of Attachment "E".

B. Operating Limitations

1. Fuel Limitation

The Permittee shall burn only the following as fuel in the units:

a. ST2

Steam Unit 2 shall burn only pipeline quality natural gas except in the event of an emergency as defined in Section III.E of Attachment "E".

b. ST3

(1) Coal;

(2) Natural gas; and

(3) Co-firing of coal and natural gas.

[A.A.C. R18-2-306.01]

2. Startup

Start-up means the setting in operation of ST2 or ST3 for any purpose.

[40 CFR 60.2]

3. Shutdown

Shutdown means the cessation of operations of ST2 or ST3 for any purpose.

[40 CFR 60.2]

4. Malfunction

Malfunction means any sudden and unavoidable failure of air pollution control equipment, process equipment or a process to operate in a normal and usual manner, but does not include failures that are caused by poor maintenance, careless operation or any other upset condition or equipment breakdown which could have been prevented by the exercise of reasonable care.

[A.A.C. R18-2-101.76]

C. Excess Emissions and Monitoring System Performance Reports

1. Excess emission and monitoring system performance (MSP) reports for Steam Units 2 and 3 shall be submitted to the Department and EPA Region IX quarterly. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. Each excess emission and MSP report shall include the information required in Condition II.C.2 below.

[40 CFR 60.45(g)]

2. The summary quarterly report, shall be in the format specified in 40 CFR 60.7(d). The excess emissions report shall include the following information:

[40 CFR 60.7(c)]

a. Magnitude of excess emissions computed, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

[40 CFR 60.7(c)(1)]

b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

[40 CFR 60.7(c)(2)]

c. The date and time identifying each period during which the continuous monitoring system (CMS) was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

[40 CFR 60.7(c)(3)]

d. When no excess emissions have occurred or the CMS has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)(4)]

D. Particulate Matter (PM/PM_{10}) and Opacity

PM and opacity limit in 40 CFR 60.42(a) does not apply to ST2 pursuant to 60.42(d) when combusting only natural gas. Permittee has petitioned to comply with 40 CFR 60.42Da(a) pursuant to 40 CFR 60.42(c). In lieu of Opacity requirements in 40 CFR 60.42(a) for ST3, PM CEMS are installed and certified.

1. Emission Limitations and Standards

a. On and after the date on which the initial performance test is under §60.8, whichever date comes first, the Permittee shall not cause to be discharged into the atmosphere from the stack of ST3 any gases which contain particulate matter in excess of 13 nanograms per joule heat input (0.03 lb per million Btu) derived from fossil fuel.

[40 CFR 60.42Da(a)]

b. The Permittee shall follow the applicable particulate matter standards in 40 CFR 60 Subpart D during any period that coal is being combusted in ST2 in accordance with the emergency provision in Condition III.E of Attachment "E".

[40 CFR 60.42(c)]

2. Air Pollution Control Requirements

a. *At all times while burning coal, the electrostatic precipitators (ESP) shall remain in service until coal fires in the boiler are out, or the minimum inlet temperature to the ESP falls below the manufacturer's design of 525 degrees Fahrenheit. At least one sulfur dioxide absorption system (SDAS) shall remain in service until the last coal ball tube mill of that respective unit is removed from service. At least one SDAS unit must be in operation at any time coal is fired in a unit.*

[A.A.C. R18-2-306.A.13 and A.A.C. R18-2-331.A.3e]
[Material Permit Conditions are indicated with underlines.]

b. *At all times while burning coal, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable*, maintain and *operate the electrostatic precipitators in a manner consistent with good air pollution control practice for minimizing particulate matter emissions.*

[40 CFR 60.11(d) and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are indicated with underlines.]

3. Monitoring/Record keeping/Reporting Requirements for Particulate Matter

a. *The Permittee shall install, calibrate,* maintain, and operate *a continuous emissions monitoring system (CEMS) for measuring PM emissions from the stack associated with ST3.*

[40 CFR 60.42(c), 40 CFR 60.42Da(b)(1)&(2), 40 CFR 60.49Da(v) and A.A.C. R18-2-331.A.3e]
[Material Permit Conditions are indicated with underlines.]

b. The ST3 PM CEMS shall meet the following requirements:

(1) 40 CFR Part 60, Appendix B, "Performance Specifications," Performance Specification 11, "Specifications and test procedures for particulate matter continuous monitoring systems in stationary sources. During each PM correlation testing run of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O2 (or CO2) data shall be collected concurrently (or within a 30- to 60-minute period) by both the CEMS and performance tests conducted using the following test methods.

(a) For PM, Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part or MATS Method 5 shall be used; and

(b) For O2 (or CO2), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.

[40 CFR 60.13, 40 CFR 60.49Da(v)(1) & (2)]

(2) 40 CFR Part 60, Appendix F, "Quality Assurance Procedures."

[40 CFR 60.49Da(v)(1), (3)]

(3) The PM monitoring system and monitoring devices shall be installed and operational prior to conducting performance tests under 40 CFR Part 60, §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

[40 CFR 60.13(b)]

(4) The Permittee shall conduct a performance evaluation of the PM CEMS during any performance test required by Condition II.D.4 or within 30 days thereafter in accordance with performance specification 11 in Appendix B of 40 CFR Part 60. Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of 40 CFR Part 60. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

[40 CFR 60.13(c), 40 CFR 60.49Da(v)(1) & (3)]

(5) The Permittee shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in 40 CFR Part 60, Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified.

[40 CFR 60.13(d)(1)]

(6) Except for system breakdowns, repairs, calibration checks, and zero span adjustments, the Permittee shall meet minimum frequency of operation as follows: The PM CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

[40 CFR 60.13(e) and 60.13(e)(2)]

(7) The Permittee must submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFire database.

[40 CFR 60.49Da(v)(4)]

4. Testing Requirements

Testing for PM emissions to meet the standards specified in Condition II.D.1 is required for ST3 only. The Permittee shall perform an annual performance test to determine the particulate matter concentration from the stack associated with ST3 using procedures and methods outlined in 40 CFR 60.50Da.

[40 CFR 60.50Da(a) & (b)(1)]

5. Compliance Demonstration

Permittee shall demonstrate compliance with Condition II.D.1 for ST3 by calculating the arithmetic average of all hourly emission rates each boiler operating day, except for data obtained during startup, shutdown, or malfunction periods. Daily averages are only calculated for boiler operating days that have non-out-of-control data for at least 18 hours of unit operation during which the standard applies. Instead, all of the non-out-of-control hourly emission rates of the operating day(s) not meeting the minimum 18 hours non-out-of-control data daily average requirement are averaged with all of the non-out-of-control hourly emission rates of the next boiler operating day with 18 hours or more of non-out-of-control PM CEMS data to determine compliance.

[40 C.F.R. § 60.45(g)(4), 40 CFR 60.48Da(f)]

6. Permit Shield

Compliance with the terms of Section II.D of this Attachment shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(c), 40 CFR 60.7(f), 60.11(c), 60.11(e)(1), 40 CFR 60.11(d), 40 CFR 60.13(a), 40 CFR 60.13(d)(1), 40 CFR 60.13(d)(2), 40 CFR 60.13(e)(1), 40 CFR 60.13(h), 40 CFR 60.42(a)(1); 40 CFR 60.42(a)(2), 40 CFR 60.42(c), 40 CFR 60.42Da(a), 40 CFR 60.42Da(b)(1)&(2), 40 CFR 60.45(a), 40, 40 CFR 60.45(g), 40 CFR 60.45(g)(1), 40 CFR 60.46(b)(1), 40 CFR 60.46(b)(2), 40 CFR 60, Appendix A, Method 9, Section 2.5, 40 CFR 60, Appendix B, PS1, 5.2.

[A.A.C. R18-2-325]

E. Sulfur Dioxide

1. Emission Limitations and Standards

a. Coal

Except during periods of startup, shutdown and malfunction, the Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain sulfur dioxide in excess of 520 nanograms per joule heat input (1.2 pounds per million Btu) derived from coal.

[A.A.C. R18-2-903.3.c.i, 40 CFR 60.8(c)]

b. Combination Fuel

Except during periods of startup, shutdown and malfunction, the Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain sulfur dioxide in excess of 340 nanograms per joule heat input (0.8 pounds per million Btu) derived from co-firing different fossil fuels.

[A.A.C. R18-2-306.A.2]

c. Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.

[40 CFR 60.43(c)]

2. Air Pollution Control Requirements

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and *operate at least one sulfur dioxide absorption system in a manner consistent with good air pollution control practice for minimizing sulfur dioxide emissions*. *At least one unit must be in operation at any time the unit is burning coal.*

[40 CFR 60.11(d) and A.A.C. R18-2-331A.3.e]
[Material Permit Conditions are indicated with underlines.]

3. Monitoring/Record keeping/Reporting Requirements

a. *The Permittee shall calibrate*, maintain, *and operate continuous emission*

monitoring systems for measuring the sulfur dioxide emissions of any unit combusting solid or liquid fossil fuel. If the unit combusts only natural gas, Permittee may use procedures authorized under 40 C.F.R. 75.11(e) to determine sulfur dioxide emissions.

[40 CFR 60.45(a), 40 CFR 75.11(a) & (e), and A.A.C. R18-2-331A.3.c]
[Material Permit Conditions are indicated with underlines.]

b. The continuous emission monitoring systems for SO_2 shall meet the following requirements:

[40 CFR 60.45(a)]

(1) 40 CFR Part 75, Appendix A, "Specification and Test Procedures"

(a) Installation and measurement location

(b) Equipment specifications

(c) Performance specifications

(d) Data acquisition and handling systems

(e) Calibration gas

(f) Certifications tests and procedures

(g) Calculations

(2) 40 CFR Part 75, Appendix B, "Quality Assurance and Quality Control Procedure"

(a) Quality control program

(b) Frequency of testing

(3) Data Reduction

The Permittee shall comply with the data reduction requirements of 40 CFR Part 75.10(d)(1).

(4) The Permittee shall comply with all the applicable record keeping and reporting requirements of 40 CFR part 75 Subparts F and G respectively.

c. Excess Emission and Monitoring System Performance Reports

(1) As required by Condition II.C, excess emission and monitoring system performance (MSP) reports for Steam Units 2 and 3 shall be submitted to the Department and EPA Region IX quarterly. Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

[40 CFR 60.45(g)]

(2) Excess emissions for sulfur dioxide shall be defined as any three-

hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard in Condition II.E.1 of Attachment "B".

[40 CFR 60.45(g)(2)]

d. Recordkeeping

The Permittee shall retain fuel sampling and analysis or fuel receipts for a period of five years.

[40 CFR 60.45(b)(1)]

4. Testing Requirements

a. The Permittee shall perform an annual performance test to determine the sulfur dioxide concentration using EPA Reference Method 6 or 6C in accordance with 40 CFR 60.46.

[40 CFR 60.46(b)(4)]

b. Emission Rate

The emission rate (E) of SO_2 shall be calculated for each run using the following equation:

[40 CFR 60.46(b)(1)]

$$E = CF_d\left(\frac{(20.9)}{(20.9-\%O_2)}\right)$$

E = Emission rate of pollutant, ng/J (1b/million Btu).

C = Concentration of pollutant, ng/dscm (1b/dscf).

F_d = Factor as determined from Method 19.

$\%O_2$ = Oxygen concentration, percent dry basis.

5. Permit Shield

Compliance with the terms of Condition II.E of this Attachment shall be deemed compliance with the following applicable requirements: A.A.C. R18-2-903.3.c.i, 40 CFR 60.7(c), 40 CFR 60.7(f), 40 CFR 60.11(d), 40 CFR 60.13(d)(1), 40 CFR 60.13(d)(2), 40 CFR 60.13(e)(2), 40 CFR 60.13(h).40.CFR 60.43(a)(1), 40 CFR 60.43(a)(2), 40 CFR 60.43(c), 40 CFR 60.45(a), 40 CFR 60.45(g), 40 CFR 60.45(g)(2), 40 CFR 60.46(b)(1), 40 CFR 60.46(b)(4), and 40 CFR 60, Appendix B, PS1, 5.2.

[A.A.C. R18-2-325]

F. Nitrogen Oxides

1. Emission Limits and Standards

a. Coal

Except during periods of startup, shutdown and malfunction, when combusting coal, the Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain nitrogen oxides, expressed as NO_2 in excess of 300 nanograms per joule heat input (0.70 lb per million Btu) derived from coal.

[40 CFR 60.44(a)(3)]

b. Natural Gas

Except during periods of startup, shutdown and malfunction, when combusting natural gas, the Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain nitrogen oxides, expressed as NO_2 in excess of 86 nanograms per joule heat input (0.20 lb per million Btu) derived from natural gas.

[40 CFR 60.44(a)(1), 60.8(c)]

c. Combination Fuels

Except during periods of startup, shutdown and malfunction, when different fossil fuels are burned simultaneously in any combination the applicable standard (in ng/J) is determined by prorating, using the following formula:

[40 CFR 60.44(b), 60.8(c)]

$$PS_{NOx} = \frac{(w*260) + (x*86) + (y*130) + (z*300)}{(w + x + y + z)}$$

Where:

PS_{NOx} = the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;

w = the percentage of total heat input derived from lignite;

x = the percentage of total heat input derived from gaseous fossil fuel;

y = the percentage of total heat input derived from liquid fossil fuel;

z = the percentage of total heat input derived from solid fossil fuel (except lignite).

2. Monitoring/Record keeping/Reporting Requirements

a. *The Permittee shall calibrate*, maintain, *and operate continuous monitoring systems for measuring the nitrogen oxides emissions.*

b. The continuous emission monitoring systems for NO_x shall meet the following requirements:

(1) 40 CFR Part 75, Appendix A, "Specification and Test Procedures"

(a) Installation and measurement location

(b) Equipment specifications

(c) Performance specifications

(d) Data acquisition and handling systems

(e) Calibration gas

(f) Certifications tests and procedures

(g) Calculations

(2) 40 CFR Part 75, Appendix B, "Quality Assurance and Quality Control Procedure"

(a) Quality control program; and

(b) Frequency of testing.

(3) 40 CFR Part 75, Appendix C, "Missing Data Estimation Procedures"

Load-Based Procedure for Missing Flow Rate and NOx Emission Rate Data

(4) 40 CFR Part 75, Appendix F, "Conversion Procedures"

Procedures for NOx Emission Rate

c. Data Reduction

The Permittee shall comply with the data reduction requirements of 40 CFR Part 75.10(d)(1).

d. The Permittee shall comply with all the applicable record keeping and reporting requirements of 40 CFR Part 75 Subparts F and G respectively.

e. Excess Emissions and Monitoring System Performance Reports

(1) As required by Condition II.C, excess emission and monitoring system performance (MSP) reports for Steam Units 2 and 3 shall be submitted to the Department and EPA Region IX quarterly. Periods of excess emissions and monitoring systems (MS)

downtime that shall be reported are defined as follows:
[40 CFR 60.45(g)]

(2) Excess emissions for nitrogen oxides shall be defined as any rolling three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of nitrogen oxides as measured by a continuous monitoring system exceed the applicable standards in Section II.F.1 of this Attachment.
[40 CFR 60.45(g)(3)]

3. Testing Requirements

a. The Permittee shall perform an annual performance test to determine the nitrogen oxides concentration using EPA Reference Method 7 or 7E in accordance with 40 CFR 60.46.
[40 CFR 60.46(b)(5)]

b. Emission Rate

The emission rate (E) of NO_x shall be calculated for each run using the following equation:
[40 CFR 60.46(b)(1)]

$$E = \frac{(C * F_d * (20.9))}{(20.9 - \%O_2)}$$

E = Emission rate of pollutant, ng/J (1b/million Btu).

C = Concentration of pollutant, ng/dscm (1b/dscf).

F_d = Factor as determined from Method 19.

$\%O_2$ = Oxygen concentration, percent dry basis.

4. Permit Shield

Compliance with the terms of Condition II.F of this Attachment shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(c), 40 CFR 60.7(f), 40 CFR 60.13(d)(1), 40 CFR 60.13(d)(2), 40 CFR 60.13(e)(2), 40 CFR 60.13(h) 40 CFR 60.44(a)(1), 40 CFR 60.44(a)(2), 40 CFR 60.44(a)(3), 40 CFR 60.44(b), 40 CFR 60.45(a), 40 CFR 60.45(g), 40 CFR 60.45(g)(3), 40 CFR 60.46(b)(1), 40 CFR 60.46(b)(5), and 40 CFR 75, Appendix F.
[A.A.C. R18-2-325]

III. STEAM UNIT 1/COMBINED CYCLE OPERATION OF STEAM UNIT 1 AND GAS TURBINE 1 (ST1 and GT1)

A. Applicability

This Section applies to Steam Unit 1 (ST1) stand-alone operation or Combined Cycle Operation of ST1 and Gas Turbine 1 (GT1) as detailed in the Equipment List of Attachment

"C". This Section does not apply when GT1 is run in simple cycle mode exhausting through the ST1 windbox, but ST1's burners are shut off and no electricity is being produced from the ST1's turbine.

B. Operational Limitations

1. Fuel Limitations

The Permittee shall burn only natural gas as fuel in ST1 and GT1.

[Installation Permit 24016]

C. Particulate Matter and Opacity

1. Emission Limitations and Standards

a. The Permittee shall not cause, allow or permit to be emitted into the atmosphere any plume or effluent the opacity of which exceeds 20%.

[A.A.C.R18-2-702.B]

b. The Permittee shall not cause, allow or permit the emission of particulate matter in excess of the amounts calculated by the following equation:

$$E = 1.02 * Q^{0.769}$$

E = the maximum allowable particulate matter emissions rate in pounds-mass per hour, rounded off to two decimal places.

Q = the heat input in million Btu per hour, from ST1 and GT1 (when run in combined cycle).

[A.A.C. R18-2-703.C.1]

2. Permit Shield

Compliance with the terms of Condition III.C of this Attachment shall be deemed compliance with the following applicable requirements: A.A.C.R18-2-703.B, and A.A.C.R18-2-703.C.1.

[A.A.C. R18-2-325]

IV. GAS TURBINE 1, 2, 3, GAS TURBINE 1 STARTUP DIESEL ENGINE (GT1, GT2, GT3, GT1 Startup Diesel Engine) AND EMERGENCY DIESEL GENERATOR

A. Applicability

This Section applies to GT1 operating as a simple cycle (including periods when exhausting through the GT1's stack and periods when exhausting through the ST1's windbox when ST1's burners are shut off and the ST1's turbine is not producing electricity), GT2, GT3, GT1 Startup Diesel Engine, and the Emergency Diesel Generator as detailed in the Equipment List of Attachment "C".

B. Operating Limitations

1. Hours Limitations

a. The Permittee shall not operate the emergency diesel generator for more than 500 hours per year on a rolling 12-month total.

[A.A.C. R18-2-306. 01]

b. The Permittee shall keep records of monthly totals of the hours of operation of Gas Turbine No. 1 Diesel Engine and the emergency diesel generator. At the end of each month, the Permittee shall calculate and record a rolling 12-month total of the hours of operation of each unit.

[A.A.C. R18-2-306.A.3.c]

2. Fuel Limitations

a. The Permittee shall not use high sulfur oil (fuel sulfur content $\geq$ 0.90% by weight) as a fuel unless the Permittee demonstrates to the satisfaction of the Director that sufficient quantities of low sulfur oil are not available for use by the source and that it has adequate facilities and contingency plans to ensure that the sulfur dioxide ambient air quality standards set forth in A.A.C. R18-2-202 will not be violated.

[A.A.C. R18-2-719.H]

b. The Permittee shall burn only the following as fuel in the following units:

[Installation Permit 240162 and A.A.C. R18-2-306.A.2]

(1) Gas Turbines No. 1 and 3 are limited to natural gas.

(2) Gas Turbine No. 2

(a) Natural gas; or

(b) No. 2 fuel oil.

(3) Gas Turbine 1 Diesel Engine and Emergency Diesel Generator are limited to diesel fuel.

3. Definition of Heat Input

a. For the purposes of conditions IV.B.2 and IV.B.3 of this Attachment, "heat input" is defined as the aggregate heat content of all fuels whose products

of combustion pass through a stack or other outlet from units covered by this Condition IV. Compliance tests shall be conducted during operation at the nominal rated capacity of the unit.

[A.A.C.R18-2-719.B]

b. The total heat input from the burning of all fuels be computed as follows:

$$\text{Total Heat Input} = \sum_{i=1}^{k} (\text{NHV}i * \text{U}i)$$

Where:

NHV_i = Net heating value of each fuel "i" at standard temperature and pressure; and

U_i = Fuel firing rate of each fuel "i".

C. Particulate Matter and Opacity

1. Emission Limitations and Standards

a. Opacity

The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

[A.A.C.R18-2-719.E]

b. Particulate Matter

The Permittee shall not cause, allow or permit the emission of particulate matter in excess of the amounts calculated by the following equation:

$$E = 1.02 * Q^{0.769}$$

E = the maximum allowable particulate matter emissions rate in pounds -mass per hour, rounded off to two decimal places.

Q = the heat input in million Btu per hour.

[A.A.C. R18-2-719.C.1]

2. Monitoring/Record keeping/Reporting Requirements

a. Visible Emissions while Burning Liquid Fuel

[A.A.C. R18-2-306.A.3.b]

The Permittee shall monitor opacity according to the following schedule:

(1) If liquid fuel is burned in a unit continuously for a time period

greater than 48 hours but less than 168 hours, at least one opacity reading shall be observed at the exit of the unit's stack.

(2) If liquid fuel is burned in a unit continuously for a time period greater than 168 hours, at least one opacity reading shall be observed during each 168 hour period at the exit of the unit's stack.

b. All opacity readings will be observed in accordance with Condition I.A. The Permittee shall maintain a record of the opacity readings and the number of hours fuel oil is burned continuously.

[A.A.C. R18-2-306.A.3.c]

c. Particulate Matter while Burning Liquid Fuel

[A.A.C. R18-2-306.A.3.b]

The Permittee shall keep on record, along with the fuel firing rate, the contractual agreement with the liquid fuel vendor indicating the following information concerning the liquid fuel being fired:

(1) The lower heating value; and

(2) The ash content.

3. Permit Shield

Compliance with the terms of Condition IV.C of this Attachment shall be deemed compliance with the following applicable requirements: A.A.C. R18-2-719.E and -719.C.1. A.A.C. R18-2-719 does not to apply to GT1 during periods of combined cycle operation when it is subject to Section III of this permit.

[A.A.C. R18-2-325]

D. Sulfur Dioxide

1. Emission Limitations and Standards

When firing low sulfur fuel oil, the Permittee shall not cause, allow, or permit emissions of more than 1.0 pound of sulfur dioxide per million Btu heat input.

[A.A.C.R18-2-719.F]

2. Monitoring/Record keeping/Reporting Requirements

a. The Permittee shall report to the Director any daily period during which the sulfur content of the fuel being fired in the stationary rotating machinery exceeds 0.8 percent.

[A.A.C. R18-2-719.J]

b. While Burning Gaseous Fuel

[A.A.C. R18-2-719.I]

The Permittee shall maintain a vendor-provided copy of that part of the Federal Energy Regulatory Commission (FERC)-approved Tariff agreement that contains the sulfur content and the lower heating value of

the pipeline quality natural gas.

c. While Burning Liquid Fuel

[A.A.C. R18-2-719.I]

(1) The Permittee shall keep records of fuel supplier certification including the following information:

(a) The sulfur content, density and the heating content of the oil from which the shipment came; and

(b) The method used to determine the sulfur content of the oil.

(2) The Permittee shall maintain records of all emissions calculations performed for any change in IV.D.2.c(1) using the following equation:

$$SO_2 = \frac{2.0 * Weight\ percent\ of\ sulfur}{100} * \frac{Density}{(Heating\ Value) * (1MMBtu / 1{,}000{,}000Btu)}$$

SO_2 = Sulfur Dioxide in (lb/MMBtu)

Density = (lb/gal)

Heating Value = (Btu/gal)

3. Permit Shield

Compliance with the terms of this Section shall be deemed compliance with the following applicable requirements: A.A.C.R18-2-703.F, -719.I, and -719.J. This section does not apply to GT1 when operating in combined cycle mode with ST1 under Section III of this permit.

[A.A.C. R18-2-325]

E. Nitrogen Oxides

Testing Requirements

[A.A.C. R18-2-306.A.3 and A.R.S. 49-422]

1. If the total operating hours for GT2 or GT3 exceed 168 hours during the permit term, the Permittee shall conduct a performance test on that unit to measure nitrogen oxides emissions once during the permit term.

2. The Permittee shall use EPA Reference Method 20 to conduct the performance test for nitrogen oxides emissions as specified in the Arizona Testing Manual for Air Pollutant Emissions.

3. The Permittee shall keep records of the cumulative operating hours of GT2 and GT3 during the permit term. Such records shall be made available for inspection or upon request.

F. Carbon Monoxide

Testing Requirements

[A.A.C. R18-2-306.A.3 and A.R.S. 49-422]

1. If the total operating hours for GT2 or GT3 exceed 168 hours during the permit term, the Permittee shall conduct a performance test for carbon monoxide on that unit one time during the permit term.

2. The Permittee shall use EPA Reference Method 10 to conduct the performance test for carbon monoxide emissions.

3. The Permittee shall keep records of the cumulative operating hours of GT2 and GT3 during the permit term. Such records shall be made available for inspection or upon request.

G. Hazardous Air Pollutants

This Section applies to the GT1 Startup Diesel Engine and the Emergency Diesel Generator identified in Attachment "C" of this permit

1. The Permittee shall operate and maintain the engine according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6625(e)(2)]

2. The Permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first. If the Permittee prefers to extend the oil change requirement, an oil analysis program described in 40 CFR 63.6625(i) shall be completed.

[40 CFR 63.6602; Table 2c of Subpart ZZZZ]

3. The Permittee shall inspect air cleaner every 1,000 hours of operation or annually, whichever comes first.

[40 CFR 63.6602; Table 2c of Subpart ZZZZ]

4. The Permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[40 CFR 63.6602; Table 2c of Subpart ZZZZ]

5. Permit Shield

Compliance with the terms of Condition IV.G of this Attachment shall be deemed compliance with the following applicable requirements: 40 CFR 63.6602, 63.6625(e)(2).

[A.A.C. R18-2-325]

V. GAS TURBINE NO. 4 (GT4)

A. Applicability

This Section applies to Gas Turbine No. 4 (GT4) as detailed in the Equipment List of

Attachment "C".

B. Operational Limitations

1. Fuel Limitations

a. The Permittee shall burn only the following as fuel in GT4:
[A.A.C. R18-2-306.01]

(1) Pipeline quality natural gas;

The Permittee shall not burn natural gas for more than the hours per year calculated by the following equation on a 12-month rolling basis:
[A.A.C. R18-2-306.01 and A.A.C. R18-2-331A.3]
[Material Permit Conditions are indicated with underlines.]

Equation V.1 Natural Gas Limitation

$$X\left(\frac{hr}{yr}\right) = \left[\frac{13.5\left(\frac{tonPM_{10}}{yr}\right) - \left[EF_{fo}\left(\frac{tonPM_{10}}{hr}\right) * Y\left(\frac{hr}{yr}\right)\right]}{EF_{ng}\left(\frac{tonPM_{10}}{hr}\right)}\right]$$

Where:

X = hours of natural gas burned during the 12-month rolling period.

Y = hours of fuel oil burned during the 12-month rolling period, not to exceed 600.

EFng = PM_{10} emissions factor for natural gas, initially provided from manufacturer's data. After initial performance test, the emission factor shall be calculated from the performance test and subsequent tests.

EFfo = PM_{10} emissions factor for fuel oil, initially provided from manufacturer's data. After initial performance test, the emission factor shall be calculated from the performance test and subsequent tests.

(2) Fuel Oil No. 2

(a) The Permittee shall fire fuel oil as an emergency backup fuel only.

(b) *The Permittee shall not burn fuel oil for more than 600 hours per year.*
[Significant Revision No. 1001734, A.A.C. R18-2-306.01 and -331.A.3]

(c) This emergency fuel may be combusted for short periods as a normal maintenance practice to verify that the unit can safely combust the emergency fuel and to conduct performance tests.

2. Monitoring/Record keeping/Reporting Requirements

[A.A.C. R18-2-306.A.3]

a. The Permittee shall keep on record the contractual agreement with the liquid fuel vendor indicating the following information for each shipment of fuel oil No. 2:

(1) The name of the fuel oil supplier;

(2) The heating value of the fuel oil;

(3) The density of the fuel oil;

(4) The sulfur content of the fuel oil from which the shipment came; and

(5) The method used to determine the sulfur content of the fuel oil.

b. The Permittee shall monitor and record the daily hours of operation for each fuel.

c. Fuel Oil No. 2 Storage Tank

The Permittee shall keep readily accessible records showing the dimension of the storage vessel and the analysis showing the capacity of the storage vessel for the life of the source.

[40 CFR 60.110(c), 60.116b(b)]

3. Permit Shield

Compliance with the terms of Condition V.B of this Attachment shall be deemed compliance with the following applicable requirements: 40 CFR 60.110(c) and 60.116(b).

[A.A.C. R18-2-325]

C. Particulate Matter

1. Emission Limitations and Standards

The Permittee shall not emit more than 13.5 tons per year of PM_{10} on a 12-month rolling total.

[Significant Revision No. 1001734, A.A.C. R18-2-306.01 and 331.A.3.a]
[Material Permit Conditions are indicated with underlines.]

2. Monitoring/Record keeping/Reporting Requirements

[A.A.C. R18-2-306.A.3]

a. The Permittee shall conduct a rolling 12-month calculation of the emissions of PM_{10} based upon performance tests and the emission factors calculated for natural gas and fuel oil. The result of these tests and the recorded hours of operation for both fuels, shall be used to calculate the annual PM_{10} emissions.

b. The PM_{10} shall be calculated using the formula below, on a monthly basis, by the fifth working day of the month, and shall be compared to the emission limitation in V.C.1 to determine compliance.

Equation V.2 Particulate $Matter_{10}$

$$Z\left(\frac{\text{tons}PM_{10}}{\text{yr}}\right) = \left[EF_{ng}\left(\frac{\text{tons}}{\text{hr}}\right) * X\left(\frac{\text{hr}}{\text{yr}}\right) + EF_{fo}\left(\frac{\text{tons}}{\text{hr}}\right) * Y\left(\frac{\text{hr}}{\text{yr}}\right)\right]$$

where:

X = hours of natural gas burned per 12-month rolling period and

Y = hours of fuel oil burned per 12-month rolling period

EF_{ng} = emissions factor for natural gas

EF_{fo} = emissions factor for fuel oil

D. Sulfur Dioxide

1. Emission Limitations and Standards

a. Except during periods of startup, shutdown or malfunction, the Permittee shall not cause to be discharged into the atmosphere, sulfur dioxide (SO_2) emissions in excess of 0.015 percent by volume at 15% oxygen on a dry basis.

[40 CFR 60.333(a)]

b. *The fuel burned in GT4 shall not contain sulfur in excess of 0.3 percent by weight.*

[Significant Revision No. 1001734, A.A.C. R18-2-306.01, -719.J, and -331A.3.a]
[Material Permit Conditions are indicated with underlines.]

c. *The Permittee shall not cause or allow the emissions of SO_2, calculated on a 12-month rolling basis, to exceed 39 tons per year.*

[Significant Revision No. 1001734, A.A.C. R18-2-306.01 and A.A.C. R18-2-331A.3.a]
[Material Permit Conditions are indicated with underlines.]

2. Monitoring/Record keeping/Reporting Requirements

a. While burning natural gas, the Permittee shall maintain a vendor-provided copy of that part of the Federal Energy Regulatory Commission (FERC)-approved Tariff agreement that specifies that the sulfur content does not exceed 20.0 grains/100 scf.

[40 CFR 60.334(h)(3)(i)]

b. While burning fuel oil, the Permittee shall keep records of fuel supplier certification including the following information:

(1) The total sulfur content of the oil from which the shipment came; and

(2) The method used to determine the sulfur content of the oil, such as those described in 40 CFR 60.335(b)(10).

[40 CFR 60.334(h)(1)]

c. At the end of every month, the Permittee shall calculate the rolling twelve month calculation of the emissions of SO_2 based upon the sulfur content of the fuel. The recorded hours of operation for both fuels, shall be used to calculate the annual SO_2 emissions.

3. Permit Shield

Compliance with the terms of Condition V.D of this Attachment shall be deemed compliance with the following applicable requirements: 40 CFR 60.333(a) and 40 CFR 60.334(h)(3)(i).

[A.A.C. R18-2-325]

E. Nitrogen Oxides

1. Emission Limitations and Standards

a. Natural Gas and Fuel Oil No. 2

Except during periods of startup, shutdown and malfunction, the Permittee shall not cause to be discharged into the atmosphere, gases which contain nitrogen oxide (NO_x) emissions in excess of the following standard (STD):

Equation V.3 NO_x Emission Limitation

$$STD = 0.0075 * \frac{14.4}{Y} + F$$

Where:

STD = allowable NO_X emissions (percent by volume at 15% oxygen on a dry basis).

Y = manufacturer's heat rate at rated load (kJoules/Watt-hour).

F = NO_x emissions allowance for fuel-bound nitrogen, per §60.332(a)(3).

[40 CFR 60.332(a)(1)]

b. *The Permittee shall not cause or allow the emission of nitrogen oxides, calculated on a 12-month rolling basis, to exceed 39 tons per year.*

[Significant Revision No. 1001734, A.A.C. R18-2-306.01 and -331.A.3.a]

[Material Permit Conditions are indicated with underlines.]

2. Air Pollution Control Requirements

a. *The Permittee shall*, maintain, *and operate a water injection system and a selective catalytic reduction (SCR) unit to control nitrogen oxides emissions.*

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-331.A.3. e]
[Material Permit Conditions are indicated with underlines.]

b. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall* maintain *and operate the water injection system and the selective catalytic reduction (SCR) system in a manner consistent with good air pollution control practices for minimizing nitrogen oxides emissions*.

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are indicated with underlines.]

c. Based on manufacturer's requirements, the SCR system shall be placed in service as soon as practicable after exhaust gas temperature reaches 570 degrees Fahrenheit and the ammonia vaporizer unit is pre-heated to 700 degrees Fahrenheit (within 45 minutes after the turbine startup).

[40 CFR 60.11(d)]

3. Monitoring/Record keeping/Reporting Requirements

a. *The Permittee shall calibrate*, maintain, *and operate continuous emissions monitoring systems for measuring nitrogen oxides emissions*.

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are indicated with underlines.]

b. Excess emissions for GT4 using a CEMS for measuring NO_x are defined as any three hour period during which the average emissions exceed the applicable standards in Condition V.E.1.a above.

[A.A.C. R18-2-306.01]

c. The NOx CEMS specified in Condition V.E.3.a above shall be used to demonstrate compliance with the NO_x limitation in Condition V.E.1.b above.

[A.A.C. R18-2-306.01]

d. The continuous emission monitoring systems for NO_x shall meet the following requirements:

[A.A.C. R18-2-306.A.3]

(1) 40 CFR Part 75, Appendix A, "Specification and Test Procedures":

(a) Installation and measurement location;

(b) Equipment specifications;

(c) Performance specifications;

(d) Data acquisition and handling systems;

(e) Calibration gas;

(f) Certifications tests and procedures; and

(g) Calculations.

(2) 40 CFR Part 75, Appendix B, "Quality Assurance and Quality Control Procedure":

(a) Quality control program; and

(b) Frequency of testing.

(3) 40 CFR Part 75, Appendix C, "Missing Data Estimation Procedures"

Load-Based Procedure for Missing Flow Rate and NOx Emission Rate Data

(4) 40 CFR Part 75, Appendix F, "Conversion Procedures"

Procedures for NO_x Emission Rate

(5) Data Reduction

The Permittee shall comply with the data reduction requirements of 40 CFR Part 75.10(d)(1).

(6) The Permittee shall comply with all the applicable record keeping and reporting requirements of 40 CFR Part 75 Subparts F and G respectively.

e. The Permittee shall use the NO_x CEMS data to calculate the amount of NO_x being emitted on a daily basis.

[A.A.C. R18-2-306.A.3.c]

f. When the NO_x CEMS is inoperative for any reason, the Permittee shall compute NO_x emissions using the procedures in 40 CFR Part 75, Subpart D.

[40 CFR 75 Subpart D]

g. By the fifth working day of each month, the Permittee shall calculate a rolling 12-month total of the emissions for the previous month.

[A.A.C. R18-2-306.A.3.c]

h. The CEMS required in Condition V.E.3.a may be used to meet the requirements of 40 CFR 60.334(b), except that the missing data substitution methodology provided for at 40 CFR part 75, subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in §60.7(c).

4. Excess Emissions and Monitoring System Performance Reports for (40 CFR 60, Subpart GG) NOX Emissions Limitations.

[A.A.C. R18-2-306.A.5]

a. Excess emission and monitoring system performance (MSP) reports for Gas Turbine No. 4 shall be submitted to the Department and EPA Region IX every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. Each excess emission and MSP report shall include the information as follows:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns and malfunctions of the unit. The nature and cause of any malfunction (if known), and the corrective action taken or preventive measures adopted.

(3) The date and time identifying each period when the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

b. The summary report form shall contain the information and be in the format shown in Figure 1 of 40 CFR 60.7(c) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CEMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CEMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(c), (d), A.A.C. R18-2-306.A.3]

5. Testing Requirements

The Permittee shall conduct annual Relative Accuracy Test Audit (RATA) tests

on the nitrogen oxides CEMS using EPA Reference Method 7 or 7E in accordance with 40 CFR 60, Appendix A.

[A.A.C. R18-2-312.A]

6. Permit Shield

Compliance with the terms of Condition V.E of this Attachment shall be deemed compliance with the following applicable requirements: 40 CFR 60.11(d), 40 CFR 60.333(a) and A.A.C. R18-2-901(42).

[A.A.C. R18-2-325]

F. Carbon Monoxide Standards (CO)

1. Emission Limitations and Standards

The Permittee shall not cause or allow the emission of carbon monoxide, calculated on a 12-month rolling basis, to exceed 95 tons per year.

[Significant Revision No. 1001734, A.A.C. R18-2-306.01 and A.A.C. R18-2-331.A.3.a]
[Material Permit Conditions are indicated with underlines.]

2. Air Pollution Control Requirements

a. *The Permittee shall install*, maintain, *and operate an oxidation catalyst to control carbon monoxide emissions*.

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-331.A.3.d and e]
[Material Permit Conditions are indicated with underlines.]

b. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall* maintain and *operate the oxidation catalyst system in a manner consistent with good air pollution control practice for minimizing carbon monoxide emissions.*

[40 CFR 60.11(d) and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are indicated with underlines.]

3. Monitoring/Record keeping/Reporting Requirements

a. *The Permittee shall install, calibrate*, maintain, and *operate continuous emissions monitoring systems for measuring carbon monoxide emissions*.

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are indicated with underlines.]

b. The CO CEMS specified in Condition V.F.3.a above shall be used to demonstrate compliance with the CO emission limitations in Condition V.F.1 above.

[A.A.C. R18-2-306.01]

c. The CEMS for CO shall meet the following requirements:

(1) 40 CFR Part 60, Appendix B, "Performance Specifications," Performance Specification 4A, "Specifications and test procedures for carbon monoxide continuous monitoring systems in stationary sources.

[40 CFR 60.13]

(2) 40 CFR Part 60, Appendix F, "Quality Assurance Procedures"

(3) The CO monitoring system and monitoring devices shall be installed and operational prior to conducting performance tests under 40 CFR Part 60, §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

[40 CFR 60.13(b)]

(4) The Permittee shall conduct a performance evaluation of the CO CEMS during any performance test required by Condition V.F or within 30 days thereafter in accordance with the applicable performance specification in Appendix B of 40 CFR Part 60. The Permittee shall conduct CEMS performance evaluations at such other times as may be required by the Director.

[40 CFR 60.13(c)]

(5) The Permittee shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in 40 CFR Part 60, Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified.

[40 CFR 60.13(d)(1)]

(6) Except for system breakdowns, repairs, calibration checks, and zero span adjustments, the Permittee shall meet minimum frequency of operation as follows: The CO CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

[40 CFR 60.13(e) and 60.13(e)(2)]

(7) The Permittee shall use the CO CEMS data to calculate the amount of CO being emitted on a daily basis.

[A.A.C. R18-2-306.A.3.c]

(8) When the CO CEMS is inoperative for any reason, the Permittee shall calculate CO emissions using the average of the 1-hour period prior to the CEMS failure and the 1-hour period following restoration of CEMS operation. This average shall be substituted into all 1-hour missing averages during the CEMS failure.

[A.A.C. R18-2-306.A.3.c]

(9) By the fifth working day of each month, the Permittee shall calculate a rolling 12-month total of CO emissions for the previous month.

[A.A.C. R18-2-306.A.3.c]

4. Testing Requirements

The Permittee shall conduct annual Relative Accuracy Test Audit (RATA) tests on the carbon monoxide CEMS using EPA Reference Method 10; in accordance with 40 CFR 60, Appendix A.

[A.A.C. R18-2-312.A]

5. Permit Shield

Compliance with the terms of Condition V.F of this Attachment shall be deemed compliance with the following applicable requirements: 40 CFR 60.333(a), and A.A.C. R18-2-901(42).

[A.A.C. R18-2-325]

VI. NESHAP SUBPART UUUUU REQUIREMENTS

A. Applicability

The requirements of 40 CFR Part 63, Subpart UUUUU are applicable to Steam Unit 3 (ST3) which is classified as an existing large major source boilers. In the event ST2 combusts coal, it shall be subject to this section.

B. General Requirements

1. The Permittee shall operate and maintain ST2 and ST3, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

[40 CFR 63.10000(b)]

2. Requirements during Startups and Shutdowns

a. Definitions

[40 CFR 63.10042]

(1) Startup

(a) Either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use). Any fraction of an hour in which startup occurs constitutes a full hour of startup; or

(b) The period in which operation of an EGU is initiated for any purpose. Startup begins with either the firing of any fuel in an EGU for the purpose of producing electricity or useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes (other than the first ever firing of fuel in a boiler following

construction of the boiler) or for any other purpose after a shutdown event. Startup ends 4 hours after the EGU generates electricity that is sold or used for any other purpose (including on site use), or 4 hours after the EGU makes useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes (16 U.S.C. 796(18)(A) and 18 CFR 292.202(c)), whichever is earlier. Any fraction of an hour in which startup occurs constitutes a full hour of startup.

(2) Shutdown

Shutdown means the period in which cessation of operation of an EGU is initiated for any purpose. Shutdown begins when the EGU no longer generates electricity or makes useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes or when no coal, liquid oil, syngas, or solid oil-derived fuel is being fired in the EGU, whichever is earlier. Shutdown ends when the EGU no longer generates electricity or makes useful thermal energy (such as steam or heat) for industrial, commercial, heating, or cooling purposes, and no fuel is being fired in the EGU. Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown.

(3) Boiler operating day means a 24-hour period that begins at midnight and ends the following midnight during which any fuel is combusted at any time in the EGU, excluding startup periods or shutdown periods. It is not necessary for the fuel to be combusted the entire 24-hour period.

(4) Clean fuel means natural gas, synthetic natural gas that meets the specification necessary for that gas to be transported on a Federal Energy Regulatory Commission (FERC) regulated pipeline, propane, distillate oil, synthesis gas that has been processed through a gas clean-up train such that it could be used in a system's combustion turbine, or ultra-low-sulfur diesel (ULSD) oil, including those fuels meeting the requirements of 40 CFR part 80, subpart I (''Subpart I—Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel; and ECA Marine Fuel'').

b. Startup and Shutdown Requirements

(1) Startup

[40 CFR 63.9991(a), and 40 CFR 63, Subpart UUUUU, Table 3]

(a) If the Permittee chooses to comply with the definition of ''startup'' in Condition VI.B.2.a(1)(a), the Permittee shall comply with the following work practice standards:

(i) Permittee shall operate all CMS during startup.

(ii) For startup of a unit, the Permittee shall use clean

fuels as defined in Condition VI.B.2.a(4) for ignition.

(iii) Once the Permittee converts to firing coal, the Permittee shall engage all of the applicable control technologies except dry scrubber and SCR.

(iv) The Permittee shall start dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation.

(v) The Permittee shall comply with all applicable emissions limits at all times except for periods that meet the applicable definitions of startup and shutdown in this subpart.

(vi) The Permittee shall keep records during startup periods.

(vii) The Permittee shall provide reports concerning activities and startup periods, as specified in Conditions VI.B.2.b(5).

(b) If the Permittee chooses to comply with the definition of ‘‘startup’’ in Condition VI.B.2.a(1)(b), the Permittee shall comply with the following work practice standards:
[40 CFR 63.9991(a), and 40 CFR 63, Subpart UUUUU, Table 3]

(i) The Permittee shall operate all CMS during startup. The Permittee shall also collect appropriate data, and must calculate the pollutant emission rate for each hour of startup.

(ii) For startup of an EGU, the Permittee shall use one or a combination of the clean fuels defined in Condition VI.B.2.a(4) to the maximum extent possible, taking into account considerations such as boiler or control device integrity, throughout the startup period.

(iii) The Permittee shall have sufficient clean fuel capacity to engage and operate the PM control device within one hour of adding coal to the unit.

(iv) The Permittee shall meet the startup period work practice requirements as identified in Condition VI.B.2.b(4).

(v) Once the Permittee starts firing coal, the Permittee shall vent emissions to the main

stack(s).

(vi) The Permittee shall comply with the applicable emission limits beginning with the hour after startup ends.

(vii) The Permittee shall engage and operate the particulate matter control(s) within 1 hour of first firing of coal,

(viii) The Permittee shall start all other applicable control devices as expeditiously as possible, considering safety and manufacturer/supplier recommendations, but, in any case, when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than 40 CFR 63 Subpart UUUUU that require operation of the control devices.

(ix) The Permittee shall provide reports concerning activities and startup periods as specified in Condition VI.F.

(2) Shutdown

[40 CFR 63.9991(a), and 40 CFR 63, Subpart UUUUU, Table 3]

(a) The Permittee shall operate all CMS during shutdown.

(b) The Permittee shall also collect appropriate data, and shall calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used.

(c) While firing coal during shutdown, the Permittee shall vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. In any case, the Permittee shall operate controls when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than 40 CFR 63 Subpart UUUUU and that require operation of the control devices.

(d) If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel shall be one or a combination of the clean fuels defined in Condition VI.B.2.a(4) and shall be used to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity.

(e) The Permittee shall comply with all applicable emission

limits at all times except during startup periods and shutdown periods at which time the Permittee shall meet this work practice.

(f) The Permittee shall collect monitoring data during shutdown periods, as specified in Condition VI.D.3.

(g) The Permittee shall keep records during shutdown periods, as provided in Conditions VI.G and VI.B.2.b(6).

(h) Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown.

(i) The Permittee shall provide reports concerning activities and shutdown periods, as specified in Condition VI.F.

(3) Should the Permittee choose to rely on the definition of "startup" in Condition VI.B.2.a(1)(b), the Permittee shall install, verify, operate, maintain, and quality assure each monitoring system necessary for demonstrating compliance with the PM or non-mercury metals work practice standards required to comply with Condition VI.B.2.a(4)VI.B.2.b(4).

[40 CFR 63.10010(l)]

(a) The Permittee shall develop a site-specific monitoring plan for PM work practice monitoring during startup periods.

(b) The Permittee shall submit the site-specific monitoring plan upon request by the Director or Administrator.

(c) The provisions of the monitoring plan shall address the following items:

(i) Monitoring system installation;

(ii) Performance and equipment specifications;

(iii) Schedule for initial and periodic performance evaluations;

(iv) Performance evaluation procedures and acceptance criteria;

(v) On-going operation and maintenance procedures; and

(vi) On-going recordkeeping and reporting procedures.

(d) The Permittee may rely on monitoring system specifications or instructions or manufacturer's

specifications to address Conditions VI.B.2.b(3)(c)(i) through (vi).

(e) The Permittee shall operate and maintain the monitoring system according to the site-specific monitoring plan.

(4) Additional requirements during startup/or shutdown periods if the Permittee choose to rely on the definition of "startup" in Condition VI.B.2.a(1)(b).

[40 CF 63 10020(e)]

(a) During each period of startup, the Permittee shall record for each EGU:

(i) The date and time that clean fuels being combusted for the purpose of startup begins;

(ii) The quantity and heat input of clean fuel for each hour of startup;

(iii) The gross output for each hour of startup;

(iv) The date and time that non-clean fuel combustion begins; and

(v) The date and time that clean fuels being combusted for the purpose of startup ends.

(b) During each period of shutdown, the Permittee shall record for each EGU:

(i) The date and time that clean fuels being combusted for the purpose of shutdown begins;

(ii) The quantity and heat input of clean fuel for each hour of shutdown;

(iii) The gross output for each hour of shutdown;

(iv) The date and time that non-clean fuel combustion ends; and

(v) The date and time that clean fuels being combusted for the purpose of shutdown ends.

(c) For PM or non-mercury HAP metals work practice monitoring during startup periods, the Permittee shall monitor and collect data according to this section and the site-specific monitoring plan required by Condition VI.B.2.b(3). The Permittee shall:

(i) Record temperature and combustion air flow or calculated flow as determined from combustion

equations of post-combustion (exhaust) gas, as well as amperage of forced draft fan(s) upstream of each filterable PM control device during each hour of startup.

(ii) Record temperature and flow of exhaust gas as well as amperage of any induced draft fan(s) downstream of the filterable PM control devices during each hour of startup.

(iii) For an EGU with a fabric filter, record the number of compartments in service, as well as the differential across the baghouse during each hour of startup.

(iv) For an EGU with a wet scrubber needed for filterable PM control, record the scrubber liquid to flue gas ratio and the pressure drop across the scrubber during each hour of startup.

(v) For an EGU with an electrostatic precipitator, record the number of fields in service, as well as each field's secondary voltage and secondary current during each hour of startup

(5) Initial Compliance Demonstration during startup or shutdown

The Permittee shall comply with the requirements in Condition VI.B.2.

[40 CFR 63.10011(g)]

(a) The Permittee may use the diluent cap and default gross output values, as described in 40 CFR 63.10007(f), during startup periods or shutdown periods

(b) The Permittee shall operate all CMS, collect data, and calculate pollutant emission rates, and record data during startup periods or shutdown periods.

(c) The Permittee shall report the information as required in Condition VI.F.

(d) If the Permittee chooses to comply with the definition of ‘‘startup’’ in Condition VI.B.2.a(1)(b), and finds that the Permittee is unable to safely engage and operate the particulate matter (PM) control(s) within 1 hour of first firing of coal, the Permittee may choose to rely on the definition of ‘‘startup’’ in Condition VI.B.2.a(1)(a) or the Permittee may submit a request to use an alternative non-opacity emissions standard, as described below.

(i) As mentioned in 40 CFR 63.6(g)(1), the request

will be published in the Federal Register for notice and comment rulemaking. Until promulgation in the Federal Register of the final alternative non-opacity emission standard, the Permittee shall comply with the definition of ‘‘startup’’ in Condition VI.B.2.a(1)(a). The Permittee shall not implement the alternative non-opacity emissions standard until promulgation in the Federal Register of the final alternative non-opacity emission standard.

(ii) The request need not address the items contained in 40 CFR 63.6(g)(2).

(iii) The request shall provide evidence of a documented manufacturer-identified safely issue.

(iv) The request shall provide information to document that the PM control device is adequately designed and sized to meet the PM emission limit applicable to the EGU.

(v) In addition, the request shall contain documentation that:

(a) The EGU is using clean fuels to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity, to bring the EGU and PM control device up to the temperature necessary to alleviate or prevent the identified safety issues prior to the combustion of primary fuel in the EGU;

(b) The Permittee has followed explicitly the EGU manufacturer’s procedures to alleviate or prevent the identified safety issue; and

(c) The Permittee has identified with specificity the details of the EGU manufacturer’s statement of concern.

(vi) The request shall specify the other work practice standards the Permittee will take to limit HAP emissions during startup periods and shutdown periods to ensure a control level consistent with the work practice standards of the final rule.

(vii) The Permittee shall comply with all other work practice requirements, including but not limited

to data collection, recordkeeping, and reporting requirements

(6) Continuous Compliance

[40 CFR 63.10021(h)]

The Permittee shall follow the startup or shutdown requirements as given in Conditions VI.B.2.b(1) and (2) for each coal-fired EGU.

(a) The Permittee may use the diluent cap and default gross output values, as described in 40 CFR 63.10007(f), during startup periods or shutdown periods.

(b) The Permittee shall operate all CMS, collect data, calculate pollutant emission rates, and record data during startup periods or shutdown periods.

(c) The Permittee shall report the information as required in Condition VI.F.

(d) The Permittee may choose to submit an alternative non-opacity emission standard, in accordance with the requirements contained in Condition VI.B.2.b(5)(d). Until promulgation in the Federal Register of the final alternative non-opacity emission standard, the Permittee shall comply with the definition of ‘‘startup’’ in Condition VI.B.2.a(1)(a).

c. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 63.9991(a), 10010(i), 10011(g), 10020(e), 10021(h), and 10042.

[A.A.C. R18-2-325]

3. Steam Boiler Tune-ups

a. Initial Steam Boiler Tune-up

The Permittee shall conduct an initial performance tune-up for an existing EGU with a neural network following the procedure specified in Condition VI.B.3.c within 18 months (545 days) after April 16, 2016.

[40 CFR 63.10005(f)]

b. Subsequent Steam Boiler Tune-ups

The Permittee shall conduct periodic performance tune-ups on ST2 and ST3, as specified in Conditions VI.B.3.c(1) through (7). For the first tune-up, the Permittee may perform the burner inspection any time prior to the tune-up or the Permittee may delay the first burner inspection until the next scheduled EGU outage provided you meet the requirements of Condition VI.B.3.a. Subsequently, the Permittee shall perform an

inspection of the burner at least once every 48 calendar months. If the EGU is offline when the deadline to perform the tune-up passes, you shall perform the tune-up work practice requirements within 30 days after the re-start of the affected unit.

[40 CFR 63.10021(e)]

c. Tune-up Procedures

[40 CFR 63.10021(e)(1) through (e)(7)]

In order to complete a tune-up, the Permittee shall:

(1) The Permittee shall, as applicable, inspect the burner and combustion controls, and clean or replace any components of the burner or combustion controls as necessary upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows:

(a) Burner or combustion control component parts needing replacement that affect the ability to optimize NO_X and CO shall be installed within 3 calendar months after the burner inspection,

(b) Burner or combustion control component parts that do not affect the ability to optimize NO_X and CO may be installed on a schedule determined by the Permittee;

(2) The Permittee shall, as applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type;

(3) The Permittee shall, as applicable, observe the damper operations as a function of mill and/or cyclone loadings, cyclone and pulverizer coal feeder loadings, or other pulverizer and coal mill performance parameters, making adjustments and effecting repair to dampers, controls, mills, pulverizers, cyclones, and sensors;

(4) The Permittee shall, as applicable, evaluate windbox pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors;

(5) The Permittee shall inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O_2 probes and/or sensors, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the

next tune-up, should be corrected or repaired as necessary;

(6) The Permittee shall optimize combustion to minimize generation of CO and NO_x. This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. NO_x optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles;

(7) While operating at full load or the predominantly operated load, the Permittee shall measure the concentration in the effluent stream of CO and NO_x in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Use of portable CO, NO_x, and O_2 monitors for this measurement is allowed. A single pre- and post-tune-up value before and after each optimization adjustment made by the system is sufficient;

d. Record Keeping and Reporting Requirements

(1) The Permittee shall maintain on-site and submit, if requested by the Director or Administrator, an annual report containing the information in Conditions VI.B.3.c(1) through (7) including:

[40 CFR 63.10021(e)(8)]

(a) The concentrations of CO and NO_x in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the steam boil combustion systems;

(b) A description of any corrective actions taken as a part of the combustion adjustment; and

(c) The type(s) and amount(s) of fuel used over the 12 calendar months prior to an adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period; and

(2) The Permittee shall report the date of all tune-ups electronically on accordance with Condition VI.F.6. The tune-up report date is the date when tune-up requirements in Condition VI.B.3.c(3) are completed.

[40 CFR 63.100021(e)(9)]

e. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 63.10005(f) and 10021(e)(1) through (9).

[A.A.C. R18-2-325]

4. Site Specific Monitoring Plan

The Permittee shall develop and submit a site-specific monitoring plan at least 60 days before the initial performance evaluation (where applicable) of each CEMS. This requirement to develop and submit a site-specific monitoring plan does not apply to affected sources with existing monitoring plans that apply to CEMS prepared under appendix B to 40 CFR Part 60 or 40 CFR Part 75, and that meet the requirements of Condition VI.D.3. Using the process described in 40 CFR 63.8(f)(4), the Permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in this Condition and, if approved, include those in the site-specific monitoring plan. The monitoring plan shall address Conditions VI.B.4.a through d.

[40 CFR 63.10000(d)(1)]

a. The site-specific monitoring plan shall include the information specified in Conditions VI.B.4.d(1) through (7). Alternatively, the requirements of Conditions VI.B.4.d(1) through (7) are considered to be met for a particular CMS if:

(1) The CMS is installed, certified, maintained, operated, and quality-assured either according to 40 CFR Part 75, or Appendix A or B of 40 CFR Part 63, Subpart UUUUU; and

(2) The recordkeeping and reporting requirements of 40 CFR Part 75, or Appendix A or B of 40 CFR Part 63, Subpart UUUUU, that pertain to the CMS are met.

b. If requested by the Director or Administrator, the Permittee shall submit the monitoring plan at least 60 days before the initial performance evaluation of a particular CMS, except where the CMS has already undergone a performance evaluation that meets the requirements of 40 CFR 63.10010 (e.g., if the CMS was previously certified under another program).

c. The Permittee shall operate and maintain the CMS according to the site-specific monitoring plan.

d. The provisions of the site-specific monitoring plan shall address the following items:

(1) Installation of the CMS or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). See 40 CFR 63.10010(a) for further details.

(2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal

analyzer, and the data collection and reduction systems.

(3) Schedule for conducting initial and periodic performance evaluations.

(4) Performance evaluation procedures and acceptance criteria (e.g., calibrations), including the quality control program in accordance with the general requirements of 40 CFR 63.8(d).

(5) On-going operation and maintenance procedures, in accordance with the general requirements of 40 CFR 63.8(c)(1)(ii), 40 CFR 63.8(c)(3), and 40 CFR 63.8(c)(4)(ii).

(6) Conditions that define a CMS that is out of control consistent with 40 CFR 63.8(c)(7)(i) and for responding to out of control periods consistent with 40 CFR 63.8(c)(7)(ii) and 40 CFR 63.8(c)(8).

(7) On-going recordkeeping and reporting procedures, in accordance with the general requirements of 40 CFR 63.10(c), 40 CFR 63.10(e)(1), and 40 CFR 63.10(e)(2)(i), or as specifically required under 40 CFR Part 63, Subpart UUUUU.

e. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 63.10000(d).

[A.A.C. R18-2-325]

C. Emission Limits/ Standards

[40 CFR Part 63, Subpart UUUUU, Table 2]

1. The Permittee shall not cause to be discharged into the atmosphere from any steam boiler stack, total particulate matter (PM) emissions in excess of 0.03 lb/MMBtu or 0.3 lb/MWh.

2. The Permittee shall not cause to be discharged into the atmosphere from any steam boiler stack, sulfur dioxide (SO_2) emissions in excess of 0.2 lb/MMBtu or 1.5 lb/MWh.

3. The Permittee shall not cause to be discharged into the atmosphere from any steam boiler stack, mercury (Hg) emissions in excess of 1.2 pound per trillion British Thermal Units (lb/TBtu) or 0.013 pound per gigawatt-hour (lb/GWh).

4. Low Emitting EGU (LEE)

a. General Requirements

(1) An existing EGU may qualify for LEE status for Hg and filterable PM if the Permittee collect performance test data that meet the requirements of Condition VI.C.4 and if those data demonstrate:

[40 CFR 63.10005(h)(1)]

(a) For PM, performance test emissions results less than 50

percent of the applicable emissions limits in Condition VI.C.1 for all required testing for 3 consecutive years, or
[40 CFR 63.10005(h)(1)(i)]

(b) For Hg emissions from an existing EGU, either:

(i) Average emissions less than 10 percent of the applicable Hg emissions limit in Condition VI.C.3 (expressed either in units of lb/TBtu or lb/GWh); or

(ii) Potential Hg mass emissions of 29.0 or fewer pounds per year and compliance with the applicable Hg emission limit in Condition VI.C.3 (expressed either in units of lb/TBtu or lb/GWh).
[40 CFR 63.10005(h)(1)(ii)]

(2) The Permittee shall use the results of the performance testing described in Condition VI.C.4.b to determine initial compliance with the applicable emission limits in Condition VI.C.4.a(1) and to determine whether the unit qualifies for LEE status.
[40 CFR 63.10011(d)]

b. Initial Performance Testing

(1) For PM, the Permittee shall conduct all required performance tests described in 40 CFR 63.10007 to demonstrate that a unit qualifies for LEE status.
[40 CFR 63.10005(h)(2)]

(a) When conducting emissions testing to demonstrate LEE status, the Permittee shall increase the minimum sample volume specified in Table 1 or 2 of 40 CFR part 63, Subpart UUUUU, nominally by a factor of two.
[40 CFR 63.10005(h)(2)(i)]

(b) The Permittee shall follow the instructions in 40 CFR 63.10007(e) and Table 5 of 40 CFR 63, Subpart UUUUU, to convert the test data to the units of the applicable standard.
[40 CFR 63.10005(h)(2)(ii)]

(2) For Hg, the Permittee shall conduct a 30-(or 90-) boiler operating day performance test using Method 30B in Appendix A-8 of 40 CFR Part 60 to determine whether a unit qualifies for LEE status. The Permittee shall locate the Method 30B sampling probe tip at a point within 10 percent of the duct area centered about the duct's centroid at a location that meets Method 1 in Appendix A-1 of 40 CFR Part 60 and conduct at least three nominally equal length test runs over the 30-boiler operating day test period. The Permittee may use a pair of sorbent traps to sample the stack gas for a period consistent with that given in section 5.2.1 of appendix A to 40 CFR 63 Subpart UUUUU. The Permittee shall collect Hg

emissions data continuously over the entire test period (except when changing sorbent traps or when performing required reference method QA procedures). As an alternative to constant rate sampling per Method 30B, the Permittee may use proportional sampling per section 8.2.2 of Performance Specification 12 B in appendix B to 40 CFR part 60.

[40 CFR 63.10005(h)(3)]

(a) Depending on whether the Permittee intends to assess LEE status for Hg in terms of the lb/TBtu or lb/GWh emission limit in Condition VI.C.3 or in terms of the annual Hg mass emissions limit of 29.0 lb/year, the Permittee shall collect some or all of the following data during the 30-boiler operating day test period (see Condition VI.C.4.b(2)(c):

[40 CFR 63.10005(h)(3)(i)]

(i) Diluent gas (CO_2 or O_2) data, using either Method 3A in appendix A-3 of 40 CFR Part 60 or a diluent gas monitor that has been certified according to 40 CFR part 75.

(ii) Stack gas flow rate data, using either Method 2, 2F, or 2G in appendices A-1 and A-2 of 40 CFR Part 60, or a flow rate monitor that has been certified according to 40 CFR Part 75.

(iii) Stack gas moisture content data, using either Method 4 in Appendix A-1 of 40 CFR Part 60, or a moisture monitoring system that has been certified according to 40 CFR Part 75. Alternatively, an appropriate fuel-specific default moisture value from 40 CFR 75.11(b) may be used in the calculations or the Permittee may petition the Administrator under 40 CFR 75.66 for use of a default moisture value for non-coal-fired units.

(iv) Hourly gross output data (megawatts), from facility records.

(b) If the Permittee uses CEMS to measure CO_2 (or O_2) concentration, and/or flow rate, and/or moisture, the Permittee shall record hourly average values of each parameter throughout the 30-boiler operating day test period. If the Permittee opts to use EPA reference methods rather than CEMS for any parameter, the Permittee shall perform at least one representative test run on each operating day of the test period, using the applicable reference method.

[40 CFR 63.10005(h)(3)(ii)]

(c) The Permittee shall calculate the average Hg concentration, in µg/m^3 (dry basis), for the 30- (or 90-) boiler operating day performance test, as the arithmetic average of all Method 30B sorbent trap results. The Permittee shall calculate, as applicable, the average values of CO_2 or O_2 concentration, stack gas flow rate, stack gas moisture content, and gross output for the test period. Then:

[40 CFR 63.10005(h)(3)(iii)]

(i) To express the test results in units of lb/TBtu, follow the procedures in 40 CFR 63.10007(e). The Permittee shall use the average Hg concentration and diluent gas values in the calculations.

(ii) To express the test results in units of lb/GWh, the Permittee shall use Equations A-3 and A-4 in section 6.2.2 of appendix A 40 CFR Part 63, Subpart UUUUU, replacing the hourly values "Ch ", "Qh ", "Bws " and "(MW)h " with the average values of these parameters from the performance test.

(iii) To calculate pounds of Hg per year, the Permittee shall use one of the following methods:

(a) Multiply the average lb/TBtu Hg emission rate (determined according to Condition VI.C.4.b(2)(c)(i) by the maximum potential annual heat input to the unit (TBtu), which is equal to the maximum rated unit heat input (TBtu/hr) times 8,760 hours. If the maximum rated heat input value is expressed in units of MMBtu/hr, multiply it by 10^{-6} to convert it to TBtu/hr; or

(b) Multiply the average lb/GWh Hg emission rate (determined according to Condition VI.C.4.b(2)(c)(ii) by the maximum potential annual electricity generation (GWh), which is equal to the maximum rated electrical output of the unit (GW) times 8,760 hours. If the maximum rated electrical output value is expressed in units of MW, multiply it by 10^{-3} to convert it to GW.

c. Subsequent Performance Testing

(1) For PM LEE

(a) For a qualifying LEE of PM emission limits in Condition VI.C.1, the Permittee shall conduct a performance test at least once every 36 calendar months to demonstrate continued LEE status.

[40 CFR 63.10000(c)(1)(iii)]

(b) For steam boilers meeting the PM LEE requirements of Condition VI.C.4, the Permittee shall repeat the performance test once every 3 years according to Table 5 of 40 CFR Part 63, Subpart UUUUU, and 40 CFR 63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur, the Permittee shall conduct emissions testing quarterly for PM, except as otherwise provided in Condition VI.D.1.d(2).

[40 CFR 63.10006(b)(1)]

(c) If a performance test on PM LEE shows emissions in excess of 50 percent of the emission limit and if the Permittee chooses to reapply for LEE status, the Permittee shall conduct performance tests at the appropriate frequency given in according to Table 5 of 40 CFR Part 63, Subpart UUUUU, 40 CFR 63.10007, and 40 CFR 63.10000(c), except as otherwise provided in Condition VI.D.1.d(2), until all performance tests over a consecutive 3-year period show compliance with the LEE criteria.

[40 CFR 63.10006(h) and 10007(b)]

(2) For Hg LEE

(a) For a qualifying LEE of Hg emission limits in Condition VI.C.3, the Permittee shall conduct a performance test at least once every 12 calendar months to demonstrate continued LEE status.

[40 CFR 63.10000(c)(1)(ii)]

(b) For Hg, the Permittee shall repeat performance tests once every year according to Table 5 of 40 CFR Part 63, Subpart UUUUU and 40 CFR 63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur, the Permittee shall install, certify maintain, and operate an Hg CEMS in accordance with Condition VI.D.1.c(1), within 6 months of losing HG LEE status. The Permittee shall conduct quarterly Hg emissions testing, except as otherwise provided in Condition VI.D.2.d(2), until the Hg CEMS is installed. The Permittee shall have 3 calendar years of testing and CEMS data that satisfy the LEE emissions criteria to reestablish LEE status.

[40 CFR 63.10006(b)(2)]

d. Non-LEE Qualification

(1) If a steam boiler does not qualify as a LEE for filterable particulate matter (PM), the Permittee shall demonstrate compliance through an initial performance test and the Permittee shall monitor continuous performance through compliance performance testing repeated quarterly.

[40 CFR 63.10000(c)(1)(iv)]

(2) If a steam boiler does not qualify as a LEE for Hg, the Permittee shall demonstrate initial compliance through the use of an HG CEMS or sorbent trap monitoring system, in accordance with 40 C.F.R. Part 63, Subpart UUUUU, Appendix A.

[40 CFR 63.10000(c)(1)(vi)]

e. Record Keeping Requirements

For a steam boiler that qualifies as LEE, the Permittee shall keep annual records that document that the emissions in the previous stack test(s) continue to qualify the unit for LEE status, and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the pollutant to increase within the past year.

[40 CFR 63.10032(d)(3)]

f. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 63.10000 (c)(1)(ii), (iv), (vi), 10005(h)(1), (1)(i), (1)(ii), (h)(2), (2)(i), (ii), (h)(3), (3)(i), (ii), (iii), 10006(b)(1), (2), (h), 10007(b), 10011(d), and 10032(d)(3).

[A.A.C. R18-2-325]

D. Compliance Demonstration

1. Continuous Compliance

a. The Permittee shall demonstrate continuous compliance with the emission limits established in Condition VI.C at all times, excluding during startup or shutdown.

[40 CFR 63.10021(a)]

b. Sulfur Dioxide

The Permittee shall demonstrate compliance with the SO_2 emissions limit in Condition VI.C.2 by:

(1) *Certifying*, operating, maintaining, and *quality assuring a sulfur dioxide (SO_2) CEMS installed* and operated *in accordance with 40 CFR part 75*;

(2) Collecting 30-boiler operating days of data from the SO_2 CEMS, as discussed in Condition VI.D.2.b; and

(3) Utilizing 30-boiler operating days of certified emissions data collected from the SO_2 CEMS, as discussed in Condition VI.D.2.c(2).

[10000(d)(2)(i), 10021(b), and AAC R18-2-331.A.3.c]
[Material Permit Condition identified by underline and italics]

c. Mercury

The Permittee shall demonstrate compliance with the Hg emissions limit in Condition VI.C.3 by:

(1) *Certifying,* operating, and maintaining and *quality assuring an Hg CEMS in accordance with 40 CFR 63, Subpart UUUUU, Appendix A*

(2) Collecting 30-boiler operating days of certified emissions data from the Hg CEMS, as discussed in Condition VI.D.2.b; and

(3) Utilizing 30 days of boiler data collected from the Hg CEMS or, as discussed in Condition VI.D.2.c(2).

[40 CFR 63.10000(c)(1)(vi), (d)(2)(i), 10021(b), and AAC R18-2-331.A.3.c]
[Material Permit Condition identified by underline and italics]

d. Particulate Matter

To demonstrate continuous compliance with the PM emission limit in Condition VI.C.1, the Permittee shall perform quarterly performance stack testing for filterable particulate matter (PM) for each individual steam boiler as follows:

[40 CFR 63.10000(c)(1)(iv) and 10006(c)]

(1) Conduct performance tests following the methods in Table 5 of 40 CFR Part 63, Subpart UUUUU and calculate the results of the testing in units of the applicable emissions standard.

[40 CFR 63.10021(d)(2)]

(2) The Permittee may skip performance testing in those quarters during which, for each individual boiler, less than 168 boiler operating hours occur, except that a performance test shall be conducted at least once every calendar year.

[40 CFR 63.10021(d)(1)]

e. As part of the demonstration of continuous compliance, the Permittee shall perform periodic tune-ups of the steam generating units, according to Condition VI.B.3.c.

[40 CFR 63.10000(e)]

f. Time between performance tests.

(1) Notwithstanding Condition VI.D.1.d(2), the requirements listed in Conditions VI.D.1.f(3), g, and h, the Permittee shall complete performance tests for existing EGU(s) as follows:

[40 CFR 63.10006(f)]

(a) At least 45 calendar days, measured from the test's end date, must separate performance tests conducted every quarter;

(b) For annual testing:

(i) At least 320 calendar days, measured from the test's end date, must separate performance tests;

(ii) At least 320 calendar days, measured from the test's end date, must separate annual sorbent trap mercury testing for 30-boiler operating day LEE tests;

(iii) At least 230 calendar days, measured from the test's end date, must separate annual sorbent trap mercury testing for 90-boiler operating day LEE tests; and

(c) At least 1050 calendar days, must separate performance tests conducted every 3 years.

(2) For units demonstrating compliance through quarterly emission testing, the Permittee shall conduct a performance test in the 4th quarter of a calendar year if the EGU has skipped performance tests in the first 3 quarters of the calendar year.

(3) If the EGU misses a performance test deadline due to being inoperative and if 168 or more boiler operating hours occur in the next test period, the Permittee must complete an additional performance test in that period as follows:

(a) At least 15 calendar days must separate two performance tests conducted in the same quarter.

(b) At least 107 calendar days must separate two performance tests conducted in the same calendar year.

(c) At least 350 calendar days must separate two performance tests conducted in the same 3 year period.

g. If a performance test on a PM LEE shows emissions in excess of 50 percent of the emission limit and if the Permittee chooses to reapply for LEE status, the Permittee shall conduct performance tests at the appropriate frequency given in Conditions VI.D.1.d and f for PM until all performance tests over a consecutive 3-year period show compliance with the LEE criteria.

[40 CFR 63.10006(h)]

h. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance

with 40 CFR 10000(c)(1)(iv), (vi), (d)(2)(i), (e), 10006 (f), (h), 10021(a), (b), (d)(1), and (2).

[A.A.C. R18-2-325]

2. Continuous Emissions Monitoring System Requirements

a. Installation of CEMS

The Permittee shall follow the requirements of 40 CFR 63.10010 for the installation of CEMS.

[40 CFR 63.10010]

b. Data Collection and Recording

[40 CFR 63.10020]

The Permittee shall monitor and collect data according to Condition VI.D.2.b and the site-specific monitoring plan required by Condition VI.B.4.

(1) The Permittee shall operate the monitoring system and collect data at all required intervals at all times that the steam boiler is operating, except for periods of monitoring system malfunctions or out-of-control periods (see 40 CFR 63.8(c)(7)), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. The Permittee is required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

(2) The Permittee shall not use data recorded during EGU startup or shutdown in calculations used to report emissions. In addition, data recorded during monitoring system malfunctions or monitoring system out of- control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating levels. The Permittee shall use all of the quality-assured data collected during all other periods in assessing the operation of the control device and associated control system.

(3) Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments), failure to collect required data is a deviation from the monitoring requirements.

c. Compliance Determinations

(1) Initial Compliance

The Permittee shall demonstrate initial compliance by utilizing Equation 19-19 of Method 19 in appendix A-7 of 40 CFR Part 60 to calculate the 30-boiler operating day rolling average emissions rate.

[40 CFR 63.10005(d)(1)]

(2) Continuous Compliance

Except as otherwise provided in Condition VI.D.2.b, the Permittee shall demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS and the other required monitoring systems (e.g., flow rate, CO_2, O_2, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day (or, if alternate emissions averaging is used for Hg, 90-boiler operating day) rolling average basis, updated at the end of each new boiler operating day. Use Equation 8 of 40 CFR 63.10021(b) to determine the 30- (or, if applicable, 90-) boiler operating day rolling average.

[40 CFR 63.10021(b)]

d. SO_2 CEMS

(1) *The Permittee shall certify,* operate, and maintain *the SO_2 CEMS according to 40 CFR Part 75*.

[40 CFR 63.10010(f)(1) and AAC R18-2-331.A.3.c]
[Material Permit Condition identified by underline and italics]

(2) For on-going QA, the SO_2 CEMS shall meet the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to 40 CFR Part 75, with the following addition: the Permittee shall perform the linearity checks required in section 2.2 of appendix B to 40 CFR Part 75 if the SO_2 CEMS has a span value of 30 ppm or less.

[40 CFR 63.10010(f)(2)]

(3) Calculate and record a 30-boiler operating day rolling average SO_2 emission rate in the units of the standard updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all of the valid hourly SO_2 emission rates in the 30 boiler operating day period.

[40 CFR 63.10010(f)(3)]

(4) The Permittee shall use only unadjusted, quality-assured SO_2 concentration values in the emissions calculations; shall not apply bias adjustment factors to the 40 CFR Part 75 SO_2 data and shall not use 40 CFR Part 75 substitute data values. For startup or shutdown hours (as defined in Condition VI.B.2.a) the default gross output and the diluent cap are available for use in the hourly SO_2 emission rate calculations, as described in 40 CFR 63.10007(f). The Permittee shall use a flag to identify each startup or shutdown hour and report a special code if the diluent cap or default gross output is used to calculate the SO_2 emission rate for

any of these hours.

[40 CFR 63.10010(f)(4)]

e. Mercury (Hg) CEMS

The Permittee shall install, certify, operate, maintain, *and quality-assure the data from an Hg CEMS* in accordance with Appendix A to 40 CFR 63, Subpart UUUUU.

[40 CFR 63.10010(g) and AAC R18-2-331.A.3.c]
[Material Permit Condition identified by underline and italics]

(1) The Permittee shall calculate and record a 30-boiler operating day rolling average Hg emission rate, in units of the standard, updated after each new boiler operating day, calculated according to section 6.2 of appendix A to 40 CFR Part 63, Subpart UUUUU, and is the average of all of the valid hourly Hg emission rates in the preceding 30-boiler operating days

(2) If the Permittee is using emissions averaging, the Permittee shall calculate a 90-boiler operating day rolling average Hg emission rate, in units of the standard, updated each new boiler operating day, using equations defined in Condition **Error! Reference ource not found.**.

[40 CFR 63.10010(g)]

f. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 63.10005(d)(1), 10010, 10010(f)(1), (2), (3), (4)0, (g), 10020, and 10021(b).

[A.A.C. R18-2-325]

3. Deviation Determination

a. Definition

Deviation means any instance in which a steam boiler, or the Permittee:

[40 CFR 63.10021(g), 10022(b), and 10042]

(1) Fails to meet any requirement or obligation established by 40 CFR Part 63 Subpart UUUUU including, but not limited to, any emission limit, operating limit, work practice standard, or monitoring requirement; or

(2) Fails to meet any term or Condition that is adopted to implement an applicable requirement in 40 CFR Part 63, Subpart UUUUU and that is included in the operating permit for any affected source required to obtain such a permit.

b. A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the Director or Administrator responsible for enforcement of the standards.

c. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 63.10021(g), 10022(b), and 10042.

[A.A.C. R18-2-325]

E. Notifications

1. The Permittee shall submit all of the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8 (e), (f)(4), & (6), and 40 CFR 63.9 (b) through (h) that apply by the dates specified, as modified by Table 9 to Subpart UUUUU of Part 63.

[40 CFR 63.10030(a)]

2. The Permittee shall submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

[40 CFR 63.10030(d)]

3. When the Permittee is required to conduct an initial compliance demonstration as specified in 40 CFR 63.10011(a), the Permittee shall submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii). The Notification of Compliance Status report shall contain all the information specified in Conditions VI.E.3.a through g, as applicable.

[40 CFR 63.10030(e)]

a. A description of the affected source(s) including identification of the subcategory of the source, the design capacity of the source, a description of the add-on controls used on the source, description of the fuel(s) burned, including whether the fuel(s) were determined by the Permittee or EPA through a petition process to be a non-waste under 40 CFR 241.3, whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of 40 CFR 241.3, and justification for the selection of fuel(s) burned during the performance test.

b. Summary of the results of all performance tests and fuel analyses and calculations conducted to demonstrate initial compliance including all established operating limits.

c. Identification of whether the Permittee plans to demonstrate compliance with each applicable emission limit through performance testing; CEMS; or a sorbent trap monitoring system.

d. Identification of whether the Permittee plans to demonstrate compliance by emissions averaging.

e. A signed certification that the Permittee has met all applicable emission limits and work practice standards.

f. If the Permittee has had a deviation from any emission limit, work practice standard, or operating limit, the Permittee shall also submit a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation in the Notification of Compliance Status report.

g. In addition to the information required in 40 CFR 63.9(h)(2), the notification of compliance status shall include the following:

(1) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable. If the Permittee is conducting stack tests once every 3 years consistent with 40 CFR 63.10005(h)(1)(i), the date of each stack test conducted during the previous 3 years, a comparison of emission level you achieved in each stack test conducted during the previous 3 years to the 50 percent emission limit threshold required in 40 CFR 63.10006(i), and a statement as to whether there have been any operational changes since the last stack test that could increase emissions.

(2) Certifications of compliance, as applicable, and shall be signed by a responsible official stating:

(a) "This EGU complies with the requirements in § 63.10021(a) to demonstrate continuous compliance." and

(b) "No secondary materials that are solid waste were combusted in any affected unit."

(3) For each of the Permittee's existing EGUs, identification of each emissions limit as Condition VI.C with which you plan to comply.

(a) The Permittee may switch from a mass per heat input to a mass per gross output limit (or vice-versa), provided that;

(i) The Permittee submit a request that identifies for each EGU or EGU emissions averaging group involved in the proposed switch both the current and proposed emission limit;

(ii) The Permittee request arrives to the Administrator at least 30 calendar days prior to the date that the switch is proposed to occur;

(iii) The Permittee request demonstrates through performance stack test results completed within 30 days prior to your submission, compliance for each EGU or EGU emissions averaging group with both the mass per heat input and mass per gross output limits;

(iv) The Permittee revise and submit all other applicable plans, e.g., monitoring and emissions averaging, with your request; and

(v) The Permittee maintain records of all information regarding your choice of emission limits.

(b) The Permittee will begin to use the revised emission limits starting in the next reporting period, after receipt of written acknowledgement from the Director or Administrator of the switch.

(c) From submission of the Permittee's request until start of the next reporting period after receipt of written acknowledgement from the Director or Administrator of the switch, the Permittee demonstrate compliance with both the mass per heat input and mass per gross output emission limits for each pollutant for each EGU or EGU emissions averaging group.

h. The Permittee shall identify which definition of ''startup'' in Condition VI.B.2.a(1) the Permittee wants to rely on. The Permittee may switch from the definition of "startup" in Condition VI.B.2.a(1)(a) to the definition of "startup" in Condition VI.B.2.a(1)(b) (or vice-versa), provided that:

[40 CFR 63.10030(e)(8)]

(1) The Permittee submits a request that identifies for each EGU or EGU emissions averaging group involved in the proposed switch both the current definition of "startup" relied on and the proposed definition the Permittee plans to rely on;

(2) The Permittee requests arrives to the Director or Administrator at least 30 calendar days prior to the date that the switch is proposed to occur;

(3) The Permittee revises and submit all other applicable plans, e.g., monitoring and emissions averaging, with the submission;

(4) The Permittee maintain records of all information regarding the choice of the definition of "startup"; and

(5) The Permittee begins to use the revised definition of "startup" in the next reporting period after receipt of written acknowledgement from the Director or Administrator of the switch.

i. The Permittee must submit the notifications in 40 CFR 63.10000(h)(2) and (i)(2) that may apply by the dates specified.

j. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 63.10030(d), (e), and (e)(8).

[A.A.C. R18-2-325]

F. Reports

[40 CFR 63.10031]

The Permittee shall submit to the Director or Administrator all reports required by Table 8 of 40 CFR 63, Subpart UUUUU and shall meet the reporting requirements as specified by 40 CFR 63.10031.

1. The Permittee shall submit each report in Table 8 of 40 CFR 63, Subpart UUUUU that applies to the Permittee. If the Permittee is required to (or elect to) continuously monitor Hg, the Permittee shall also submit the electronic reports required under appendix A and/or appendix B of 40 CFR 63, Subpart UUUUU, at the specified frequency.

[40 CFR 63.10031(a)]

2. The Permittee shall submit reports according to timelines established in Condition XIV of Attachment A.

3. The compliance report shall contain the information required in Conditions VI.F.3.a through e.

[40 CFR 63.10031(c)]

a. The information required by the summary report located in 40 CFR 63.10(e)(3)(vi).

b. The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the Permittee's basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

c. Indicate whether the Permittee burned new types of fuel during the reporting period. If the Permittee did burn new types of fuel the Permittee shall include the date of the performance test where that fuel was in use.

d. Include the date of the most recent tune-up for each EGU. The date of the tune-up is the date the tune-up provisions specified in Conditions VI.B.3.c(6) and (7) were completed.

e. Should the Permittee choose to rely on definition of "startup" in Condition VI.B.2.a(1)(b) for the EGU, for each instance of startup or shutdown, the Permittee shall:

(1) Include the maximum clean fuel storage capacity and the maximum hourly heat input that can be provided for each clean fuel determined according to the requirements of Condition VI.G.5.

(2) Include the information required to be monitored, collected, or recorded according to the requirements of Condition VI.B.2.b(4).

(3) If the Permittee chooses to use CEMS to demonstrate compliance with numerical limits, include hourly average CEMS values and hourly average flow values during startup periods or shutdown period. The Permittee shall use units of micrograms per cubic meter for Hg CEMS values, and ppmv for SO_2 CEMS values. The Permittee shall use units of standard cubic meters per hour on a wet basis for flow rates.

f. The Permittee must report emergency bypass information annually from EGUs with LEE status.

g. A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during the test, if applicable. If the Permittee is conducting stack tests once every 3 years to maintain LEE status, consistent with 40 CFR 63.10006(b), the date of each stack test conducted during the previous 3 years, a comparison of emission level achieved in each stack test conducted during the previous 3 years to the 50 percent emission limit threshold required in 40 CFR 63.10005(h)(1)(i), and a statement as to whether there have been any operational changes since the last stack test that could increase emissions.

h. A certification

i. If the Permittee has a deviation from any emission limit, work practice standard, or operating limit, the Permittee must also submit a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation.

4. For each excess emissions occurring at an affected source where the Permittee is using a CMS to comply with that emission limit or operating limit, the Permittee shall include the information required in 40 CFR 63.10(e)(3)(v) in the compliance report specified in Condition VI.F.3.

5. The Permittee shall report all deviations as defined in Condition VI.D.3, in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If the Permittee submits a compliance report pursuant to Table 8 of 40 CFR 63, Subpart UUUUU along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the Permittee may have to report deviations from permit requirements to the permit authority.

6. On or after July 1, 2018, within 60 days after the date of completing each performance test, the Permittee shall submit the performance test reports required by this subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using those test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. If confidential business information (CBI) is included in the performance test data, the Permittee shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same

ERT file with the CBI omitted shall be submitted to EPA via CDX as described earlier in this Condition. At the discretion of the Department, the Permittee shall also submit these reports, including the confidential business information, to the Department in the format specified by the Department.

a. On or after July 1, 2018, within 60 days after the date of completing each CEMS (SO_2, PM, and Hg) performance evaluation test, as defined in 40 CFR 63.2 and required by this subpart, the Permittee shall submit the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) required by 40 CFR 63, Subpart UUUUU to EPA's WebFIRE database by using CEDRI that is accessed through EPA's CDX (*www.epa.gov/cdx*). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (*http://www.epa.gov/ttn/chief/ert/index.html*). Only RATA data compounds listed on the ERT Web site are subject to this requirement. If confidential business information (CBI) is included in the RATA data, the Permittee shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) by registered letter to EPA and the same ERT file with the CBI omitted to EPA via CDX as described earlier in this Condition. The compact disk or other commonly used electronic storage media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The Permittee shall also submit these RATAs to the Director or Administrator in the format specified in this Condition. The Permittee shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in 40 CFR 63.2 and as required in 40 CFR Part 63, Subpart UUUUU.

b. Reports for an SO_2 CEMS, a Hg CEMS, and any supporting monitors for such systems (such as a diluent or moisture monitor) shall be submitted using the ECMPS Client Tool, as provided for in Appendices A and B to 40 CFR 63 subpart UUUUU and Condition VI.G.

c. Submit the compliance reports required under Conditions VI.F.3 and 4 and the notification of compliance status required under Condition VI.F.5 to EPA's WebFIRE database by using the CEDRI that is accessed through EPA's CDX (*www.epa.gov/cdx*). The Permittee shall use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format.

d. All reports required by 40 CFR 63, Subpart UUUUU not subject to the requirements in Condition VI.F.6, and Conditions VI.F.6.a through c shall be sent to the Administrator or Director at 1110 W. Washington St., Phoenix, AZ 85007. These reports may be submitted on electronic media. The Director or Administrator retains the right to require submittal of reports subject to Condition VI.F.6, and Conditions VI.F.6.a through c in paper format.

e. All reports subject to electronic submittal in Condition VI.F.6, and Conditions VI.F.6.a through c shall be submitted to the EPA at the

frequency specified in those Conditions in electronic portable document format (PDF) using the ECMPS Client Tool. Each PDF version of a submitted report must include sufficient information to assess compliance and to demonstrate that the testing was done properly. The following data elements shall be entered into the ECMPS Client Tool at the time of submission of each PDF file:

(1) The facility name, physical address, mailing address (if different from the physical address), and county;

(2) The ORIS code (or equivalent ID number assigned by EPA's Clean Air Markets Division (CAMD)) and the Facility Registry System (FRS) ID;

(3) The EGU (or EGUs) to which the report applies. Report the EGU IDs as they appear in the CAMD Business System;

(4) The identification of each emission point to which the report applies. An ''emission point'' is a point at which source effluent is released to the atmosphere, and is a dedicated stack that serves one of the EGUs identified in Condition VI.F.6.b. To identify an emission point, associate it with the EGU or stack ID in the CAMD Business system or the electronic monitoring plan (e.g., ''Unit 2 stack,'' ''common stack CS001,'' or ''multiple stack MS001'');

(5) The rule citation for which the report is showing compliance;

(6) The pollutant(s) being addressed in the report;

(7) The reporting period being covered by the report (if applicable);

(8) The relevant test method that was performed for a performance test (if applicable);

(9) The date the performance test was conducted (if applicable); and

(10) The responsible official's name, title, and phone number.

7. If a malfunction occurred during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.

8. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 63.10031(a) and (c)(5).

[A.A.C. R18-2-325]

G. Record Keeping Requirements

[40 CFR 63.10032]

1. The Permittee shall keep records according to Conditions VI.G.1.a and b. The Permittee shall also keep the records required under Appendix A of 40 CFR 63, Subpart UUUUU.

    a. A copy of each notification and report that the Permittee submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that are submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).

    b. Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in 40 CFR 63.10(b)(2)(viii).

2. For each CEMS, the Permittee shall keep records according to Conditions VI.G.2.a through d.

    a. Records described in 40 CFR 63.10(b)(2)(vi) through (xi).

    b. Previous (*i.e.* , superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).

    c. Request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i).

    d. Records of the date and time that each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

3. The Permittee shall keep the records required in Table 7 of 40 CFR 63, Subpart UUUUU.

4. For each steam boiler subject to an emission limit, the Permittee shall also keep the records in Conditions VI.G.4.a and b.

    a. The Permittee shall keep records of monthly fuel use by each steam boiler, including the type(s) of fuel and amount(s) used.

    b. If the Permittee combusts non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1), the Permittee shall keep a record which documents how the secondary material meets each of the legitimacy criteria. If the Permittee combusts a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(2), the Permittee shall keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2. If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), the Permittee shall keep a record which documents how the fuel satisfies the requirements of the petition process.

    c. For an EGU that qualifies as an LEE under § 63.10005(h), Permittee must keep annual records that document that emissions in the previous stack

test(s) continue to qualify the unit for LEE status for an applicable pollutant, and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the pollutant to increase within the past year.

5. The Permittee shall keep following records for startup periods or shutdown periods:

   a. Should the Permittee choose to rely on the definition of "startup" in Condition VI.B.2.a(1)(a), the Permittee shall keep records of the occurrence and duration of each startup or shutdown;

   b. Should the Permittee choose to rely on the definition of "startup" in Condition VI.B.2.a(1)(b), the Permittee shall keep records of

      (1) The determination of the maximum clean fuel capacity for each EGU;

      (2) The determination of the maximum hourly clean fuel heat input and of the hourly clean fuel heat input for each EGU; and

      (3) The information required in Condition VI.B.2.b(4).

6. The Permittee shall keep records of the occurrence and duration of each malfunction of an operation (i.e., process equipment) or the air pollution control and monitoring equipment.

7. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with Condition VI.B.1, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

8. The Permittee shall keep records of the type(s) and amount(s) of fuel used during each startup or shutdown.

9. The Permittee shall keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).

   [40 CFR 63.10033(a)]

10. As specified in 40 CFR 63.10(b)(1), the Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

    [40 CFR 63.10033(b)]

11. The Permittee shall keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The Permittee can keep the records off site for the remaining 3 years.

    [40 CFR 63.10033(c)]

12. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 63.10032.

[A.A.C. R18-2-325]

VII. STEAM CLEANER WATER HEATERS

A. Applicability

This Section applies to the Steam Cleaner Hot Water Heaters detailed in the Equipment List of Attachment "C".

B. Operating Limitations

Fuel Limitations

1. Steam Cleaner Hot Water Heater

The Permittee shall burn only propane in the hot water heaters.

[A.A.C. R18-2-306.01]

2. Definition of Heat Input

Heat input is defined as the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. Compliance tests shall be conducted during operation at the nominal rated capacity of the unit.

[A.A.C.R18-2-724.B]

C. Particulate Matter (PM/PM_{10}) and Opacity

1. Emission Limits and Standards

a. Opacity Standard

The Permittee shall not cause or allow to be discharged into the atmosphere from the steam cleaner hot water heaters any plume or effluent that exceeds 15 percent opacity.

[A.A.C. R18-2-724.J]

b. Particulate Matter Standard

[A.A.C. R18-2-724.C.1]

The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from the steam cleaner hot water heaters in excess of the amount calculated by the following equation:

$$E = 1.02*Q^{0.769}$$

Where,

E = the maximum allowable particulate matter emissions rate in pounds -mass per hour, rounded off to two decimal places.

Q = the heat input in million Btu per hour
[A.A.C. R18-2-724.C.1]

2. Monitoring/Record keeping/Reporting Requirements

The Permittee shall report all six-minute periods in which the opacity of any plume or effluent exceeds 15 percent from the steam cleaner hot water heaters.
[A.A.C. R18-2-724.J]

3. Permit Shield

Compliance with the terms of Condition VII of this Attachment shall be deemed compliance with the following applicable requirements: A.A.C.R18-2-724.C.1 and A.A.C. R18-2-724.J.
[A.A.C. R18-2-325]

VIII. COAL PREPARATION PLANT

A. Applicability

This Section applies to the Coal Preparation Plant detailed in the Equipment List of Attachment "C".

B. Operational Definitions

1. Normal Operation

For the purposes of this Section, under "Normal Operation" none of the following will be in operation:

a. Sizing screens;

b. Conveyor #6;

c. Conveyor #7;

d. Conveyor #8; or

e. Conveyor #9.

2. Alternative Operation

For the purposes of this Section, the Permittee will be operating under the "Alternative Operation" when any one of the following is in operation:

a. Sizing screens;

b. Conveyor #6;

c. Conveyor #7;

d. Conveyor #8; or

e. Conveyor #9.

C. Particulate Matter and Opacity

1. Emission Limitations and Standards

a. While under Normal Operations, the Permittee shall not cause, allow or permit to be emitted into the atmosphere any plume or effluent from any of the following equipment in excess of 20 percent opacity, measured in accordance with Condition I.A.

[A.A.C. R18-2-702.B]

(1) Railcar Unloading Feeder Nos. 1 through 8;

(2) Screen Feeders Nos. 1 through 8;

(3) Conveyor Nos. 1, 3, 4A, 4B, 5-2 and 5-3.

(4) Transfer Chute from Conveyor No. 1 to Tripper Conveyor 2;

(5) Transfer Chute from Conveyor No. 1 to Conveyor Nos. 4A and 4B;

(6) Enclosed Transfer Chute Nos. 4A and 4B

(7) Feeder Nos. 9 through 13; and

(8) Coal Silos.

b. While operating under Normal Operations, the Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any equipment listed in VIII.C.1.a in total quantities in excess of the amounts calculated by the following equation:

$$E = 55.0*P^{0.11} - 40$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-730.A.1.b]

c. While operating under Alternative Operations, the *Permittee shall not cause to be discharged into the atmosphere from any equipment listed below, gases which exhibit 20 percent opacity or greater.*

[40 CFR 60.254(a) and A.A.C. R18-2-331.A.3.f]
[Material Permit Conditions are indicated with underlines.].

(1) Railcar Unloading Feeder Nos. 1 through 8;

(2) Screen Feeders Nos. 1 through 8;

(3) Conveyor Nos. 1, 6, 7, 8 and 9;

(4) Transfer Chute from Conveyor No. 1 to Conveyor No. 6;

(5) Sizing Screens; and

(6) Transfer Hopper from Conveyor No. 8 to Conveyor No. 9.

d. While under Alternative Operations, the Permittee shall not cause, allow or permit to be emitted into the atmosphere any plume or effluent from any of the following equipment in excess of 20 percent opacity, measured in accordance with Condition I.A.

[A.A.C. R18-2-702.B]

(1) Transfer Chute from Conveyor No. 1 to Conveyor Nos. 4A and 4B;

(2) Transfer Chute from Conveyor No. 1 to Tripper Conveyor 2;

(3) Conveyor Nos. 3, 4A, 4B, 5-2, 5-3

(4) Enclosed Transfer Chute Nos. 4A and 4B;

(5) Feeder Nos. 9 through 13; and;

(6) Coal Silos.

e. While under Alternative Operations, the Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any non-NSPS equipment listed in VIII.C.1.d in total quantities in excess of the amounts calculated by the following equation:

$$E = 55.0*P^{0.11} - 40$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-730.A.1.b]

2. Air Pollution Control Requirements

a. *Wet dust suppression shall be* maintained and *operated at the screen feeders during screening in a manner consistent with good air pollution control practices*.

[Installation Permit 24014 and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are indicated with underlines.]

b. *Dry fogging systems shall be* maintained and *operated at the railcar unloading area, at the transfer point between Conveyor #1 and Conveyor #2, the Conveyor #2 stack-out tube, the transfer point between Conveyor #3 and Conveyors #4A and #4B and the three rotary plows, in a manner consistent with good air pollution control practices.*

[[Installation Permit 24014 and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are indicated with italics and underlines.]

c. *Either wet suppression or dry fogging systems shall be* maintained and *operated at the track hopper feeders in a manner consistent with good air pollution control practices.*

[A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are indicated with italics and underlines.]

d. *The Permittee shall* maintain and *operate at all times, the baghouse used to capture particulate matter emissions associated with the coal silos in a manner consistent with good air pollution control practices.*

[Installation Permit 24014 and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are indicated with italics and underlines.]

e. *The Permittee shall* maintain and *operate the coal dust collection system on the coal silos in accordance with the manufacturer's specifications.* These specifications shall be on file and readily available for inspection by the Department.

[A.A.C. R18-2-306.A.3.b and 331.A.3e]
[Material Permit Conditions are indicated with italics and underlines.]

3. Monitoring/Record keeping/Reporting Requirements

[A.A.C. R18-2-306.A.3.b]

a. While in Normal Operation, the Permittee shall conduct the following monitoring and recordkeeping for all the equipment listed in Condition VIII.C.1.a:

(1) Opacity

A certified Method 9 observer shall conduct a weekly visual survey of visible emissions from the listed units when they are in operation according to Condition I.A.

(2) Particulate Matter

The Permittee shall maintain records of emissions related maintenance performed on the coal dust collection system.

b. While under Alternative Operation, the Permittee shall conduct the following monitoring and recordkeeping for all the equipment listed in Conditions VIII.C.1.c and VIII.C.1.d.

(1) The Permittee shall keep a record of the operating times of each piece of equipment. The record shall include:

(a) date and time of start-up of each operation, and

(b) date and time of cessation of each operation.

(2) Opacity observations shall be conducted according to the following schedule:

(a) At least one opacity observation shall be conducted each day a piece of equipment is operated.

(b) One opacity observation shall be conducted for each day of operation, provided the requirement of Condition VIII.C.3.b(2)(a) is satisfied.

(c) If the six-minute opacity of the plume during any of the opacity observations exceeds 20%, Permittee shall do the following:

(i) Adjust or repair the controls or equipment to reduce opacity to below 20%; and

(ii) Report the occurrence as an excess emission in accordance with Section XII.A of Attachment "A" of this permit.

(d) If the six-minute opacity of the plume is less than 20%, the observer shall make a record of the following:

(i) Date and time of the test;

(ii) Name of observer; and

(iii) The results of the Method 9 observation.

4. Permit Shield

Compliance with the terms of Condition VIII of this Attachment shall be deemed compliance with the following applicable requirements: 40 CFR 60.252(c), A.A.C. R18-2-702.B, R18-2-730(A), and Installation Permit 24014.

[A.A.C. R18-2-325]

IX. LIMESTONE HANDLING SYSTEM

A. Applicability

This Section applies to the Limestone Handling System detailed in the Equipment List of Attachment "C".

B. Operating Limitations

1. *The Permittee shall install, calibrate*, maintain and operate *monitoring devices which can be used to determine daily the process weight of limestone produced.*

The weighing devices shall have an accuracy of +/- 5 percent over their operating range.

[A.A.C. R18-2-722.F and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are indicated with underlines.]

2. The Permittee shall maintain a record of the daily production rates of limestone.
[A.A.C. R18-2-306.A.3,b and 722.G]

3. The Permittee shall maintain records of the dates on which wetting agents or dust suppressants were employed during the transfer of limestone to the grizzly.
[A.A.C. R18-2-306.A.3.c]

C. Particulate Matter (PM/PM_{10}) and Opacity

1. Emission Limitations and Standards

a. Opacity

The Permittee shall not cause, allow or permit to be emitted into the atmosphere any plume or effluent from any limestone handling operation in excess of 20 percent opacity, measured in accordance with the Condition I.A.

[A.A.C. R18-2-702.B]

b. Particulate Matter

[A.A.C. R18-2-722.B.1]

The Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any limestone preparation operation in total quantities in excess of the amounts calculated by the following equation:

$$E = 4.10 * P^{0.67}$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour, rounded off to two decimal points.

P = the process weight rate in tons-mass per hour. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

2. Air Pollution Control Requirements

a. *The Permittee shall* maintain and *operate at all times the limestone bin bag filter used to capture particulate matter emissions associated with limestone storage bin in a manner consistent with good air pollution control practices.*

[Installation Permit 24014 and A.A.C. R18-2-331.A.3.e]

b. *Spray bar pollution controls shall be utilized in accordance with EPA*

Control of Air Emissions From Process Operations In The Rock Crushing Industry@ (EPA 340/1-79-002), Wet Suppression System@ (pages 15-34, amended as of January 1979 (and no future amendments or editions)), as incorporated herein by reference and on file with the Office of the Secretary of State, with placement of spray bars and nozzles as required by the Director to minimize air pollution.

[A.A.C. R18-2-722.D]

c. *The Permittee shall* maintain and *operate a water spray system at the transfer conveyor from the silo to the verti mill in accordance with the manufacturer's specifications*. These specifications shall be on file and shall be readily available for inspection by the Department.

[A.A.C. R18-2-306.A.3 and A.A.C. R18-2-331.e]
[Material Permit Conditions are indicated with underlines.]

d. The Permittee shall use wetting agents or dust suppressants to prevent excessive amounts of particulate matter from becoming airborne during the transfer of limestone to the grizzly.

[A.A.C. R18-2-306.A.2 and 306.A.3.b]

3. Monitoring/Record keeping/Reporting Requirements

a. Opacity

A certified Method 9 observer shall conduct a weekly visual survey of visible emissions from the limestone handling system when it is in operation in accordance with Condition I.A. This weekly observation shall include observation of all exposed transfer points, enclosed transfer points, and the bag filter. Permittee shall keep a record of the name of the observer, the date on which the observation was made, and the results of the observation.

[A.A.C. R18-2-306.A.3.b]

4. Permit Shield

Compliance with the terms of Condition IX of this Attachment shall be deemed compliance with the following applicable requirements A.A.C. R18-2-702.B, A.A.C. R18-2-722.B.1, A.A.C. R18-2-722.D, A.A.C. R18-2-722.F, and A.A.C. R18-2-722.G.

[A.A.C. R18-2-325]

X. COOLING TOWERS

A. Applicability

This Section applies to Cooling Towers 1, 2, and 3 detailed in the Equipment List of Attachment "C".

B. Particulate Matter (PM/PM_{10}) and Opacity

1. Emission Limits and Standards

a. Opacity

(1) The Permittee shall not cause, allow or permit to be emitted into the atmosphere any plume or effluent the opacity of which exceeds 20 percent, measured in accordance with Condition I.A.
[A.A.C.R18-2-702.B]

(2) If the presence of uncombined water is the only reason for an exceedance of any visible emissions requirement in this Section, the exceedance shall not constitute a violation of the applicable opacity limit.
[A.A.C. R18-2-702.C]

b. Particulate Matter

The Permittee shall not cause, allow or permit the emission of particulate matter in excess of the amounts calculated by the following equation:

$$E = 55.0 * P^{0.11} - 40$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour, rounded off to two decimal points.

P = the process weight rate in tons-mass per hour. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.
[A.A.C. R18-2-730.A.1.b]

2. The Permittee shall not emit gaseous or odorous materials from equipment, operations, or premises in such quantities or concentrations to cause air pollution.
[A.A.C. R18-2-730.D]

3. Where a stack, vent, or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce, or eliminate the discharge of air pollution to adjoining property.
[A.A.C. R18-2-730.G]

4. Permit Shield

Compliance with the terms of Condition X.B of this Attachment shall be deemed compliance with the following applicable requirements: A.A.C.R18-2-702.B, A.A.C. R18-2-730.A.1.b, A.A.C. R18-2-730.D and A.A.C. R18-2-730.G.
[A.A.C. R18-2-325]

XI. FUEL OIL STORAGE TANKS

A. Applicability

This Section applies to the 700,000-gallon and 132,000-gallon Fuel Oil Storage Tanks

detailed in the Equipment List of Attachment "C".

B. Gaseous Emissions

1. No person shall emit gaseous or odorous materials from equipment, operations or premises under his control in such quantities or concentration as to cause air pollution.

[A.A.C. R18-2-730.D]

2. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharging to adjoining property, the Director may require the installation of abatement equipment or the of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute or eliminate the discharge of air pollution to adjoining property.

[A.A.C. R18-2-730.G]

C. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-730.D, and G.

XII. GASOLINE STORAGE TANK

A. Applicability

This Section applies to the Gasoline Storage Tank detailed in the Equipment List of Attachment "C".

B. Operational Requirements

1. Gasoline storage tank shall be equipped with a submerged filling device or acceptable equivalent, for control of hydrocarbon emissions.

[A.A.C. R18-2-710.B]

2. All pumps and compressors that handle gasoline shall be equipped with mechanical seals or other equipment of equal efficiency to prevent release of organic contaminants into the atmosphere.

[A.A.C. R18-2-710.D]

C. Monitoring and recordkeeping requirements

1. The Permittee shall, for the gasoline storage tank, maintain a file, of the typical Reid vapor pressure of gasoline stored and of dates of storage. Dates on which the storage vessel is empty shall be shown.

[A.A.C. R18-2-710.E.1]

2. The Permittee shall record the average monthly temperature and true vapor pressure of gasoline at such temperature if the true vapor pressure is greater than 470 mm Hg (9.1 psia) and the gasoline is stored in a storage vessel other than one equipped with a vapor recovery system or its equivalent.

[A.A.C. R18-2-710.E.2.b]

3. The average monthly storage temperature shall be an arithmetic average calculated for each calendar month, or portion thereof, if storage is for less than a month, from bulk liquid storage temperatures determined at least once every seven days.

[A.A.C. R18-2-710.E.3]

4. The true vapor pressure shall be determined by the procedures in American Petroleum Institute Bulletin 2517, amended as of February 1980 (and no future editions), which is incorporated herein by reference and on file with the Office of the Secretary of State. This procedure is dependent upon determination of the storage temperature and the Reid vapor pressure, which requires sampling of the petroleum liquids in the storage vessels. Unless the Director requires in specific cases that the stored petroleum liquid be sampled, the true vapor pressure may be determined by using the average monthly storage temperature and the typical Reid vapor pressure. For those liquids for which certified specifications limiting the Reid vapor pressure exist, the Reid vapor pressure may be used. For other liquids, supporting analytical data must be made available upon request to the Director when typical Reid vapor pressure is used.

[A.A.C. R18-2-710.E.4]

D. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-710.B, D, E.1, E.2.b, and E.4.

[A.A.C. R18-2-325]

XIII. FUGITIVE DUST REQUIREMENTS

A. Applicability

This Section applies to any non-point source of fugitive dust in the facility.

B. Particulate Matter and Opacity

Open Areas, Roadways & Streets, Storage Piles, and Material Handling

1. Emission Limitations/Standards

a. Opacity of emissions from any fugitive dust non-point source shall not be greater than 40%.

[A.A.C. R18-2-614]

b. The Permittee shall employ the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:

(1) Keep dust and other types of air contaminants to a minimum in an open area where construction operations, repair operations, demolition activities, clearing operations, leveling operations, or any earth moving or excavating activities are taking place, by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means;

[A.A.C. R18-2-604.A]

(2) Keep dust to a minimum from driveways, parking areas, and vacant lots where motor vehicular activity occurs by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means;

[A.A.C. R18-2-604.B]

(3) Keep dust and other particulates to a minimum by employing dust suppressants, temporary paving, detouring, wetting down or by other reasonable means when a roadway is repaired, constructed, or reconstructed;

[A.A.C. R18-2-605.A]

(4) Take reasonable precautions, such as wetting, applying dust suppressants, or covering the load when transporting material likely to give rise to airborne dust;

[A.A.C. R18-2-605.B]

(5) Take reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods when crushing, handling, or conveying material likely to give rise to airborne dust;

[A.A.C. R18-2-606]

(6) Take reasonable precautions such as chemical stabilization, wetting, or covering when organic or inorganic dust producing material is being stacked, piled, or otherwise stored;

[A.A.C. R18-2-607.A]

(7) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material, or with the use of spray bars and wetting agents;

[A.A.C. R18-2-607.B]

(8) The Permittee shall take reasonable precautions, such as the use of dust suppressants, before the cleaning of a site, roadway, or alley. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

[A.A.C. R18-2-804.B]

(9) Any other method as proposed by the Permittee and approved by the Director.

[A.A.C. R18-2-306.A.3.c]

2. Air Pollution Control Requirements

Haul Roads and Storage Piles

Water, or an equivalent control, shall be used to control visible emissions from haul roads and storage piles.

[A.A.C. R18-2-306.A.2 and -331.A.3.d]
[Material Permit Condition is indicated by underline and italics]

3. Monitoring and Recordkeeping Requirements

a. The Permittee shall maintain records of the dates on which any of the activities listed in Conditions XIII.B.1.b above were performed and the control measures that were adopted.

[A.A.C. R18-2-306.A.3.c]

b. Opacity Monitoring Requirements

Each month, the Permittee shall monitor visible emissions from fugitive sources in accordance with Condition I.A.

[A.A.C. R18-2-306.A.3.c]

4. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-604. -605, -606, 607, -608, -612 and -804.B.

XIV. OTHER PERIODIC ACTIVITIES

A. Abrasive Blasting

1. Particulate Matter and Opacity

a. Emission Limitations/Standards

The Permittee shall not cause or allow sandblasting or other abrasive blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Good modern practices include:

(1) Wet blasting;

(2) Effective enclosures with necessary dust collecting equipment; or

(3) Any other method approved by the Director.

[A.A.C. R18-2-726]

b. Opacity

The Permittee shall not cause, allow or permit visible emissions from sandblasting or other abrasive blasting operations in excess of 20% opacity.

[A.A.C. R18-2-702.B.3]

2. Monitoring and Recordkeeping Requirement

Each time an abrasive blasting project is conducted, the Permittee shall make a record of the following:

a. The date the project was conducted;

b. The duration of the project; and

c. Type of control measures employed.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-702.B.3 and -726.

[A.A.C.R18-2-325]

B. Use of Paints

1. Volatile Organic Compounds

a. Emission Limitations/Standards

While performing spray painting operations, the Permittee shall comply with the following requirements:

(1) The Permittee shall not conduct or cause to be conducted any spray painting operation without minimizing organic solvent emissions. Such operations, other than architectural coating and spot painting, shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray.

[A.A.C.R18-2-727.A]

(2) The Permittee or their designated contractor shall not either:

(a) Employ, apply, evaporate, or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or

(b) Thin or dilute any architectural coating with a photochemically reactive solvent.

[A.A.C.R18-2-727.B]

(3) For the purposes of Condition XIV.B.1.a(2), a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in Conditions XIV.B.1.a(3), or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

(a) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation-hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: 5 percent.

(b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent.

(c) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.

[A.A.C.R18-2-727.C]

(4) Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups of organic compounds described in Conditions XIV.B.1.a(3), it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

[A.A.C.R18-2-727.D]

b. Monitoring and Recordkeeping Requirements

(1) Each time a spray painting project is conducted, the Permittee shall make a record of the following:

(a) The date the project was conducted;

(b) The duration of the project;

(c) Type of control measures employed;

(d) Safety Data Sheets (SDS) for all paints and solvents used in the project; and

(e) The amount of paint consumed during the project.

(2) Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of Condition XIV.B.1.b(1)

[A.A.C. R18-2-306.A.3.c]

c. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C.R18-2-727.

[A.A.C.R18-2-325]

2. Opacity

a. Emission Limitation/Standard

The Permittee shall not cause, allow or permit visible emissions from painting operations in excess of 20% opacity.

[A.A.C. R18-2-702.B.3]

b. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C.R18-2-702.B.3.

[A.A.C. R18-2-325]

C. Demolition/Renovation - Hazardous Air Pollutants

1. Emission Limitation/Standard

The Permittee shall comply with all of the requirements of 40 CFR 61 Subpart M (National Emissions Standards for Hazardous Air Pollutants - Asbestos).

[A.A.C. R18-2-1101.A.12]

2. Monitoring and Recordkeeping Requirement

The Permittee shall keep all required records in a file. The required records shall include the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-1101.A.12.

[A.A.C. R18-2-325]

ATTACHMENT "C": EQUIPMENT LIST

EQUIPMENT ID	DESCRIPTION	MAXIMUM CAPACITY	MAKE/MODEL	SERIAL NUMBER	DATE OF MFG.
Steam Unit 1 (ST1)	Wall-fired steam electric	75 MW	B & W	BW-21343	1963
Steam Unit 2 (ST2)	Wall-fired steam electric	195MW	Riley Stoker	3911	1976
Steam Unit 3 (ST3)	Wall-fired steam electric	195MW	Riley Stoker	3912	1976
Gas Turbine 1 (GT1)	Simple cycle gas turbine	10.4 MW	GE / Frame 5	127756	1963
Gas Turbine 2 (GT2)	Simple cycle gas turbine	19.8 MW*	GE / MS-5000	225962	1972
Gas Turbine 3 (GT3)	Simple cycle gas turbine	64.9 MW*	Westinghouse / W-501B2	27A1101	1975
Gas Turbine 4 (GT4)	Simple cycle gas turbine	44MW	GE LM6000 SPRINT	1582P0290	2002
GT1 Startup Diesel Engine	Diesel engine for Startup of Gas Turbine 1	430 hp*	Cummins Vt-903-C	37129857	1990
Emergency Diesel Generator	Emergency diesel generator	345 hp	Caterpillar SR-4	90U1386	
Cooling Tower 1	Steam unit cooling tower	60,000 gpm	Davenport Cooling Tech 4ETF/4848.6.19	N/A	1995
Cooling Tower 2	Steam unit cooling tower	117,500 gpm	International Cooling Tower/XF69-18-28-18	N/A	2008
Cooling Tower 3	Steam unit cooling tower	117,500 gpm	International Cooling Tower/XF69-18-28-18	N/A	2008
Hot Water Heaters and Space Heaters	Process residential heating units	Varies	N/A	N/A	Varies
Track Hoppers (8)	Coal Preparation Plant	5000 tph	Marathon Steel		1976
Track Feeders (8)	Coal Preparation Plant	900 tph	Vibranetics VF-60HD		1976
Conveyor No. 1, 2, 4 through 9	Coal Preparation Plant	5000 tph	Marathon Steel	N/A	1976, #2 extended in 2003
Conveyor 3 –Reclaim operations	Coal Preparation Plant	900 tph	Marathon Steel	N/A	1976, Upgraded in 2003

EQUIPMENT ID	DESCRIPTION	MAXIMUM CAPACITY	MAKE/MODEL	SERIAL NUMBER	DATE OF MFG.
Conveyor 4a and 4b – Reclaim operations	Coal Preparation Plant	450 tph	Marathon Steel	N/A	1976
Shuttle Conveyor Nos. 5-2 and 5-3	Coal Preparation Plant	450 tph	Marathon Steel	N/A	1976
Conveyor Feeder Nos. 9 through 12	Coal Preparation Plant	450 tph	Vibranetics VF-42HD	N/A	1976
Conveyor Feeder No. 13	Coal Preparation Plant	900 tph	Vibranetics VF-42HD	N/A	1976
Sizing Screens (8)	Coal Preparation Plant	5000 tph	Marathon Steel V-16	N/A	1977
Rotary Plow Feeder (3)	Coal Preparation Plant	5000 tph	Marathon Steel Dearborn Midwest	N/A	#1 1976, #2, 3 2003
Coal Silos (6)	Coal Preparation Plant	240 tph	Marathon Steel	N/A	1976
Conveyor 2 Stack-out Tube	Coal Preparation Plant	5000 tph	Dearborn Midwest	N/A	2003
Limestone Handling Plant	Storage bin, ball mill, and conveyors	10 tph	Minerals/Vertimill VTM-250-WB	N/A	2011
Fuel Oil Tank	Storage Tank	700,000 gallons	N/A	N/A	N/A
Fuel Oil Tank	Storage Tank	132,000 gallons	N/A	N/A	N/A
Gasoline AST	Storage Tank	10,000 gallons	N/A	N/A	N/A

CONTINUOUS EMISSION MONITORS

	NOx Monitor	SO_2 Monitor	CO_2 Monitor	Opacity Monitor	Flow Monitor
Steam unit 1	Teledyne Monitor Labs: TML-41	N/A	Teledyne Monitor Labs: TML-20	N/A	N/A
Steam unit 2	Teledyne Monitor Labs: TML-41	Teledyne Monitor Labs: M100E	Teledyne Monitor Labs: TML-20	Teledyne Monitor Labs: Lighthawk 560	Teledyne Monitor Labs: UF150
Steam unit 3	Teledyne Monitor Labs: TML-41	Teledyne Monitor Labs: M100E	Teledyne Monitor Labs: TML-20	Teledyne Monitor Labs: Lighthawk 560	Teledyne Monitor Labs: UF150
Gas Turbine No. 4	Teledyne Monitor Labs: 9841AS	N/A	N/A	N/A	N/A

POLLUTION CONTROL EQUIPMENT

Equipment ID	Description	Rated Capacity /Process Rate	Serial Number	Make/ Model	Date of Manufacture	Rated Efficiency
Activated Carbon Injection System	Injection of AC for the control of mercury Steam Unit 2*	6,447 cubic feet	ADA-ES #: 3139 -15	ADA-ES / ACI	March 21, 2016	N/A
Electrostatic Precipitator	Hot Side ESP for Steam Unit 2*	1,104,000 ACFM @ 710F	75-342	Universal Oil Products	1976 – 1977	99.56%
Sulfur Dioxide Absorption System (SDAS)	Wet limestone scrubber for Steam Unit 2*	363,000 ACFM (normal operation)	N/A	Research Cottrell	1976	85% (down to 20% of max. unit rating)
Selective Non-Catalytic Reduction System (SNCR)	SNCR system injecting urea for the control of NOx on Steam Unit 3	181 gallons per hour of 50% urea	N/A	Fuel Tech Inc.	2017	31%
Activated Carbon Injection System	Injection of AC for the control of mercury on Steam Unit 3	6,447 cubic feet	ADA-ES#: 3139 -15	ADA-ES / ACI	March 21, 2016	N/A
Electrostatic Precipitator	Hot Side ESP for Steam Unit 3	1,104,000 ACFM @ 710F	75-615	Universal Oil Products	1976 – 1977	99.56%
Sulfur Dioxide Absorption System (SDAS)	Wet limestone scrubber for Steam Unit 3	363,000 ACFM (during normal operation)	N/A	Research Cottrell	1976	85% (down to 20% of max. unit rating)
Activated Carbon Silos Filter	Storage of AC for injection into Steam Units 2* & 3.	1,100 ACFM/400-1000 ACFM truck dependent		BVF-700	March 21, 2016/Industrial Accessory Company	Filtration efficiency shall not exceed 0.005 grs/dscf
Bromide Addition	Bromide addition for mercury control to Steam Units 2* & 3	6,000 gallon storage/ 250 ppm			2010	Hg removal up to 70%
Selective Catalyst Reduction	NOx Reduction for Gas Turbine 4	N/A	SCR-1	Engelhard VNX Vanadiatitania	2002	
CO Oxidation Catalyst	CO Reduction from Gas Turbine 4	N/A	CO-1	Engelhard Camet CO	2002	
Coal Dust Collection System	Fabric Filter serving Coal Silos 2A, 2B, 2C, 3A, 3B, and 3C, and Conveyors 4A, 4B, 5-2 and 5-3	28,000 ACFM	325	Air-Cure Inc. RF Dust collector / 376 RF10	1996	

Equipment ID	Description	Rated Capacity /Process Rate	Serial Number	Make/ Model	Date of Manufacture	Rated Efficiency
Coal Dust Suppression System	Dry fogging systems at railcar unloading area, transfer points between Conveyor #1 and #2, conveyor #2 stack-out tube, transfer point between Conveyor #3 and Conveyors #4A and 4B and the three rotary plows	N/A	N/A	N/A	N/A	N/A
Coal Dust Suppression System	Wet dust suppression at screen feeders during screening	N/A	N/A	N/A	N/A	N/A
Limestone Silo Bag Filter	Bag Filter on Limestone Silo	575 ACFM	12-52-8117	Flex Kleen/ Research Cottrell /58-BV16-11	1977	

*See Condition **Error! Reference source not found.** regarding coal firing for ST2.

ATTACHMENT "D": PHASE II ACID RAIN PROVISIONS
Air Quality Control Permit No #69734
For
Arizona Electric Power Cooperative, Inc. - Apache Generating Station

I. STATEMENT OF BASIS

Statutory and Regulatory Authorities: In accordance with Arizona Revised Statutes, Title 49, Chapter 3, Article 2, Section 426.N, and Titles IV and V of the Clean Air Act, the Arizona Department of Environmental Quality issues this Phase II Acid Rain Permit pursuant to Arizona Administrative Code, Title 18, Chapter 2, Article 3, Section 333 (A.A.C. R18-2-333), "Acid Rain".

II. FACILITY WIDE SO_2 ALLOWANCE

Facility Wide SO_2 Allowance† Allocations

Emission Units	Post 2010
Steam Unit No. 1, 2, 3and GT-4	4,588 Tons per Year

† As defined under 40 CFR §72.2, "Allowance" means an authorization by the Administrator under the Acid Rain Program to emit up to one ton of sulfur dioxide during or after a specified calendar year.

* The number of allowances allocated to Phase II affected units by U.S. EPA may change in a 1998 revision to 40 CFR part 73 Tables 2, 3, and 4. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

** AEPCO will hold sufficient SO_2 allowances by the annual allowance transfer deadline to account for SO_2 emissions for each calendar year.

III. NO_x LIMITS

A. Steam Unit No. 1

This unit is not subject to a NO_x limit under 40 CFR Part 76.

B. Steam Unit No. 2 and Steam Unit No. 3

Pursuant to 76.7(a)(2) and determined in accordance with 40 CFR Part 75, each steam unit shall comply with the applicable average annual NOx emission limitation rate of 0.46 lb/MMBtu.

C. In addition to the described NOx compliance plan, these units shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for NOx averaging plan and requirements covering excess emissions.

D. Gas Turbine No. 4

This unit is not subject to a NO_x limit under 40 CFR Part 76.

IV. COMMENTS, NOTES AND JUSTIFICATIONS

AEPCO has elected to comply with a NOx averaging plan pursuant to 40 CFR 76.11 for Units 2 and 3.

V. PERMIT APPLICATION

The Permittee, and any other owners or operators of the units at this facility, shall comply with the requirements contained in the acid rain permit application (OMB No. 2060-0258) signed by the Designated Representative Larry D. Huff on 12/13/95 and revised on 3/8/99 (OMB No. 2060-0258) by new Designated Representative James M. Andrew and Alternate Designated Representative Michael D. Nelson.

ATTACHMENT "E": BART ALTERNATIVES

I. General

Where multiple emission limits, standards or requirements apply to a unit, the most stringent limit, standard or requirement controls.

II. Best Available Retrofit Technology for Steam Unit 1 (ST1 or combined cycle ST1 and GT1)

A. Applicability

1. The BART limit for Steam Unit 1 will apply when Steam Unit 1 (ST1) operates in stand-alone operation or when ST1 and Gas Turbine 1 (GT1) operate in combined cycle operation.

2. The BART limit does not apply to:

   a. GT1 in stand-alone simple cycle operation; or

   b. ST1 and GT1 in combined warming/drying operation when ST1's burners are shut off and ST1 is not producing electricity.

B. Best Available Retrofit Technology Limits

[40 CFR 52.145(e)(1) and A.A.C R18-2-306.A.2] [SPR 55412]
[Partial SIP Approval on December 5, 2012; 77 FR 72511]

1. ST1 shall combust only pipeline natural gas.

2. ST1 shall not emit more than 0.00064 lb SO_2/MMBtu heat input in stand-alone operation or in combined cycle operation with GT1, averaged over 30 boiler operating days.

3. ST1 shall not emit more than 0.0075 lb PM_{10}/MMBtu heat input in stand-alone operation or in combined cycle operation with GT1, averaged over 30 boiler operating days.

4. ST1 shall not emit NO_X in stand-alone operation in excess of 0.056 lb/MMBtu heat input, averaged over 30 boiler operating days.

5. ST1 and GT1 in combined cycle operation shall not emit NO_X in excess of 0.10 lb/MMBtu heat input, averaged over 30 boiler operating days.

6. ST1 in stand-alone operation and ST1 and GT1 in combined cycle operation shall not emit NO_X in excess of 1205 lb/day, averaged over 30 calendar days.

7. The Permittee may comply with the limits in Section II through any combination of process adjustments or add-on controls, provided that such combination achieves the emission limit (on a 30-day rolling average basis), complies with applicable regulations and permits and the Permittee obtains any necessary preconstruction or operating approvals.

III. Best Available Retrofit Technology for Steam Units 2 and 3 (ST2 and ST3)

[40 CFR 52.145(e)(1) and A.A.C R18-2-306.A.2] [SPR 55412]
[Partial SIP Approval on December 5, 2012; 77 FR 72511]

A. Compliance with Best Available Retrofit Technology Limits on NO_X emissions from ST2 and ST3

1. Compliance during a boiler operating day when both units are operating is demonstrated when either of the following Conditions is met:

   a. The combined NO_X emissions of ST2 and ST3 meet the combined limit in Condition III.D; or

   b. Each unit meets its individual NO_X limit in Conditions III.B and III.C.

2. Compliance during a boiler operating day when only one unit is operating is demonstrated when the operating unit meets its individual NO_X limit specified in Condition III.B or III.C.

3. Except as provided in Conditions III.B.2 and III.C.2, the Permittee may comply with the limits in Section III through any combination of process adjustments or add-on controls (or use of pipeline quality natural gas in lieu of coal in Steam Unit 3), provided that such combination achieves the emission limit (on a 30-day rolling average basis), complies with applicable regulations and permits, and the Permittee obtains any necessary preconstruction or operating approvals.

B. Best Available Retrofit Technology Limits for ST2

1. ST2 shall not emit SO_2 in excess of 0.15 lb/MMBtu heat input, averaged over 30 boiler operating days and shall not emit PM_{10} in excess of 0.03 lb/MMBtu heat input (filterable only), averaged over 30 boiler operating days.

2. ST2 shall burn only pipeline quality natural gas except in the event of an emergency as defined in Section III.E.

3. ST2 shall not emit NO_X in excess of 0.085 lb/MMBtu heat input, averaged over 30 boiler operating days, SO_2 in excess of 0.00064 lb/MMBtu heat input, averaged over 30 boiler operating days, and PM_{10} in excess of 0.01 lb/MMBtu heat input (filterable + condensable), averaged over 30 boiler operating days.

4. Effective December 5, 2018, ST2 shall not emit PM_{10} in excess of 0.008 lb/MMBtu heat input (filterable + condensable), averaged over 30 boiler operating days.

C. Best Available Retrofit Technology Limits for ST3

1. ST3 shall not emit SO_2 in excess of 0.15 lb/MMBtu heat input, averaged over 30 boiler operating days and shall not emit PM_{10} in excess of 0.03 lb/MMBtu heat input (filterable only), averaged over 30 boiler operating days.

2. ST3 shall install, operate and maintain low NO_X burners, overfire air, and selective non-catalytic reduction (SNCR) technology. The SNCR shall operate at all times that ST3 is in operation and exhaust gas temperatures equal or exceed the

manufacturer's recommended minimum temperature for operation of the SNCR technology.

3. ST3 shall not emit NO_X in excess of 0.23 lb/MMBtu heat input, averaged over 30 boiler operating days.

D. Best Available Retrofit Technology Limits for Combined Operation of ST2 and ST3

In lieu of the individual limits set forth for NO_X in Conditions III.B.3 and III.C.3, the combined NOx emissions of ST2 and ST3, averaged over 30 boiler-operating days, shall not exceed the limit established in the following equation:

$$Limit = \frac{\left[\left(Unit\ 2\ MMBtu_{Gas} \times 0.085\ \frac{lb}{MMBtu_{Gas}}\right) + \left(Unit\ 2\ MMBtu_{Coal} \times 0.37\ \frac{lb}{MMBtu_{Coal}}\right) + \left(Unit\ 3\ MMBtu \times 0.23\ \frac{lb}{MMBtu}\right)\right]}{Unit\ 2\ MMBtu + \ Unit\ 3\ MMBtu}$$

E. Emergency Provision for ST2

1. The Permittee will not operate ST2 on coal except in the event of a supply disruption caused by natural gas supplier or transporter pipeline failure, freeze-up or pipeline compression failure that reduces gas volume or gas pressure below that necessary for Apache Generating Station gas generation. The Permittee must discontinue coal firing as expeditiously as possible after restoration of natural gas service at levels supporting continuous firing of ST2 and in no event more than 48 hours after restoration of such service.

2. During any such period of coal operation and for such period thereafter as provided in Section III.E.3, the Permittee shall comply with the emission limits set forth in Condition III.B.1 for PM_{10} and SO_2 and shall minimize NO_X emissions by use of good combustion practices and not to exceed 0.37 lb/MMBtu, averaged over 30 boiler-operating days.

3. Effective with the next boiler operating day after natural gas operation is restored for NO_X and SO_2, and within 90 boiler operating days after natural gas operation is restored for PM_{10}, the Permittee shall resume compliance with the applicable emissions limits set forth in Conditions III.B or III.D, as applicable.

IV. Compliance Determination

A. Continuous Emissions Monitoring System.

[A.A.C R18-2-306.A.3]

1. At all times, the Permittee shall maintain, calibrate, and operate a CEMS, in full compliance with the requirements found at 40 CFR Part 75, to accurately measure SO_2, NO_X, diluent, and stack gas volumetric flow rate from ST2 and ST3. ST2 is not subject to the requirements of this Condition IV.A for SO_2 upon its conversion to pipeline natural gas, but shall then comply with Condition IV.C.4.

2. At all times, the Permittee shall maintain, calibrate, and operate a CEMS, in full compliance with the requirements found at 40 CFR Part 75, to accurately measure NO_X, diluent, and stack gas volumetric flow rate from ST1.

3. Except as provided herein, all valid CEMS hourly data shall be used to determine

compliance with the emission limitations for NO_X and SO_2 (when applicable) in Sections II and III for each unit. When the CEMS is out-of-control as defined by Part 75, that CEMS data shall be treated as missing data and not used to calculate the emission average of the affected unit. Each required CEMS must obtain valid data for at least 90 percent of the unit operating hours, on an annual basis.

4. The Permittee shall comply with the quality assurance procedures for CEMS found in 40 CFR Part 75. In addition to these Part 75 requirements, relative accuracy test audits shall be calculated for both the NO_X and SO_2 pounds per hour measurement and the heat input measurement. The CEMs monitoring data shall not be bias adjusted.

5. Heat input for ST1 and GT1 shall be measured in accordance with Part 75 fuel gas measurement procedures found in 40 CFR Part 75, Appendix D.

B. Compliance Determinations for NO_X.

[A.A.C. R18-2-306.A.3.c]

1. The 30-day rolling average NO_X emission rate for each of the following: stand-alone operation of ST1, combined cycle operation of ST1 and GT1, ST2, ST3, and combined ST2 and ST3, shall be calculated for each calendar day that the unit operates in accordance with the following procedure:

   a. Step One: For each unit, sum the hourly pounds of NO_X emitted during the current boiler-operating day and the preceding twenty-nine (29) boiler operating days, to calculate the total pounds of NO_X emitted over the most recent thirty (30) boiler-operating day period for each unit, except that for ST1 and GT1 during the combined warming/drying operation described in Condition II.A.2.b, all emissions are excluded;

   b. Step Two: For each unit, sum the hourly heat input, in MMBtu, during the current boiler operating day and the preceding twenty nine (29) boiler-operating days, to calculate the total heat input, in MMBtu, over the most recent thirty (30) boiler-operating day period for each unit. For ST1 and GT1 operating in combined cycle operation, MMBtu from both units shall be included in this calculation; but for ST1 and GT1 operating in combined drying/warming operation, MMBtu from neither unit shall be included;

   c. Step Three: For each unit, divide the total pounds of NO_X emitted by that unit from step one by the total heat input for that unit from step two to calculate each unit's 30-day rolling average NO_X emission rate, in pounds of NO_X per MMBtu, for each calendar day. This is the final step for determining whether Steam Unit 1 in stand-alone operation complies with the limits in Condition II.B.4, whether ST1 and GT1 in combined cycle operation comply with the limits in Condition II.B.5, and whether ST2 and ST3 comply with the limits in Conditions III.B or III.C;

   d. Step Four: If demonstrating compliance for ST2 and ST3 with the combined limit in Section III.D, sum together the total pounds of NO_X emitted from ST2 and ST3 over each unit's most recent thirty (30) boiler-operating day period (the most recent 30 boiler operating day periods for different units may be different);

e. Step Five: Sum together the total heat input from ST2 and ST3 over each unit's most recent thirty (30) boiler-operating day period;

f. Step Six: Divide the total pounds of NO_X emitted from step four for ST2 and ST3 by the total heat input from step five for ST2 and ST3, to calculate the combined 30-day rolling average NO_X emission rate for ST2 and ST3, in pounds of NO_X per MMBtu, for each calendar day.

2. For purposes of determining compliance with the limit in Condition II.B.6, the 30-day rolling average NO_X pound/day emission rate for stand-alone operation of ST1 or combined cycle operation of ST1 and GT1 shall be calculated for each calendar day in which either stand-alone or combined cycle operation occurs in accordance with the following procedure:

a. Sum the hourly pounds of NO_X emitted on that calendar day and the hourly pounds of NO_X emitted during the preceding twenty-nine (29) calendar days to calculate the total pounds of NOX emitted over the most recent thirty (30) calendar day period, except that for ST1 and GT1 during the combined warming/drying operation described in Condition II.A.2.b, all emissions are excluded;

b. Divide the sum by 30 to calculate the 30-day rolling calendar day average pound/day emission rate for ST1 in stand-alone operation and ST1 and GT1 in combined cycle operation for comparison with the limit in Condition II.B.6.

3. For purposes of determining compliance with the limit in Condition II.B.4, only NO_X emissions generated and the heat input of fuel burned during periods when ST1 is operating in stand-alone operation shall be counted in the calculations required by Conditions IV.B.1.a through c.

4. For purposes of determining compliance with the limit in Condition II.B.5, only NO_X emissions generated and the heat input of fuel burned during periods when ST1 and GT1 are operating in combined cycle operation shall be counted in the calculations required by Conditions IV.B.1.a through c.

5. Except as otherwise provided in this Condition IV.B, each 30-day rolling average NO_X emission rate shall include all emissions and all heat input that occur during all periods within any boiler-operating day, including emissions from startup, shutdown, and malfunction.

6. Compliance is demonstrated if:

a. For ST1:

(1) In stand-alone operation it meets its NO_X limit in Condition II.B.4 as calculated in Condition IV.B.1 step three; OR

(2) In combined cycle operation with GT1 it meets the combined cycle NO_X lb/ton limit in Condition IV.B.5 as calculated in Condition IV.B.1 step three AND it meets the NO_X lb/day limit in Condition II.B.6 as calculated in Condition IV.B.2; OR

(3) It is not operating during that calendar day.

b. For ST2 and ST3:

(1) Each operating unit meets its individual NO_X limit in Condition III.B or III.C respectively as calculated in step three; OR

(2) The combined ST2 and ST3 average meets its combined NO_X limit in Condition III.D as calculated in step six; OR

(3) The unit is not operating during that calendar day.

7. If a valid NO_X pounds per hour or heat input is not available for any hour for a unit, that heat input and NO_X pounds per hour shall not be used in the calculation of the 30-day rolling average, except that if only NO_X pounds per hour data are available, it may be used to calculate compliance with the pound per day limit in Condition II.B.6, if applicable, in accordance with Condition IV.B.2.

C. Compliance Determinations for SO_2

[A.A.C. R18-2-306.A.3.c]

1. The 30-day rolling average SO_2 emission rate for ST2 and ST3 shall be calculated for each calendar day on which the unit operates in accordance with the following procedure:

a. Step One: Sum the total pounds of SO_2 emitted from the unit during the current boiler-operating day and the previous twenty-nine (29) boiler-operating days;

b. Step Two: Sum the total heat input to the unit in MMBtu during the current boiler-operating day and the previous twenty-nine (29) boiler-operating day;

c. Step Three: Divide the total number of pounds of SO_2 emitted during the thirty (30) boiler-operating days by the total heat input during the thirty (30) boiler-operating days. A new 30-day rolling average SO_2 emission rate shall be calculated for each new boiler-operating day.

2. Each 30-day rolling average SO_2 emission rate shall include all emissions and all heat input that occur during all periods within any boiler-operating day, including emissions from startup, shutdown, and malfunction.

3. If a valid SO_2 pounds per hour at the outlet of the FGD system or heat input is not available for any hour for a unit, that heat input and SO_2 pounds per hour shall not be used in the calculation of the 30-day rolling average.

4. Compliance is demonstrated if each operating unit meets its individual SO_2 limit in Condition III.B or III.C respectively as calculated in step three OR if the unit is not operating during that calendar day.

5. ST1 and ST2 (after conversion to pipeline natural gas) shall demonstrate compliance with the SO_2 limits through use of pipeline quality natural gas.

6. If ST2 operates on coal pursuant to an emergency as defined in Condition III.E of this Attachment after its SO_2 CEMS is removed, the Permittee will demonstrate compliance with the SO_2 limits in Condition III.E.2 by calculating emissions based on the sulfur content of the coal on a lb/MMBtu basis multiplied by the number of MMBtu fired on coal multiplied by the overall sulfur removal efficiency of the Sulfur Dioxide Absorption System (SDAS) unit and converted to SO_2 and units of the standard.

D. Compliance Determinations for PM_{10}

[A.A.C R18-2-306.A.3 and A.A.C. R18-2-312]

1. Compliance with the particulate matter emission limitation for ST2 and ST3 shall be determined from annual performance stack tests. Within one hundred eighty (180) days of the compliance deadline specified in Conditions III.B or III.C of this Attachment the Permittee shall conduct a stack test on ST2 and ST3 to measure PM_{10} using EPA Method 5, in 40 CFR part 60, Appendix A, or Method 201A/202 in 40 CFR Part 51, Appendix M.

2. ST2, after conversion to pipeline natural gas, shall demonstrate compliance with its limits in Conditions III.B.1, III.B.3 and III.B.4 within 90 days of the effective dates specified in Conditions III.B.1, III.B.3 and III.B.4 respectively. Compliance for ST2 shall be demonstrated using EPA Method 5, in 40 CFR part 60, Appendix A and Method 202, in 40 CFR Part 51, Appendix M, or EPA Method 201A/202 in 40 CFR Part 51, Appendix M.

3. After completion of the initial performance testing required in Conditions 0 and IV.D.2, compliance shall be determined in accordance to the following procedures:

   a. For ST1 and ST2, the Permittee shall demonstrate compliance through use of pipeline quality natural gas.

   b. For ST3, the Permittee shall conduct a stack test on an annual basis to measure PM_{10} using EPA Method 5, in 40 CFR part 60, Appendix A, or Method 201A/202 in 40 CFR Part 51, Appendix M.

4. A test protocol shall be submitted to ADEQ a minimum of 30 days prior to the scheduled testing. The protocol shall identify which method(s) will be used to demonstrate compliance. Each test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet. Results shall be reported in lb/MMBtu using the calculation in 40 CFR Part 60 Appendix A Method 19.

5. In addition to required stack tests, the owner/operator shall monitor particulate emissions for compliance with the emission limitations in accordance with any applicable Compliance Assurance Monitoring (CAM) plan developed and approved in accordance with 40 CFR Part 64. The averaging time for any other demonstration of PM_{10} compliance or exceedance shall be based on a 6-hour average.

V. Recordkeeping, Reporting and Miscellaneous Provisions

A. Recordkeeping.

[A.A.C. R18-2-306.A.3.c]

The Permittee shall maintain the following records for at least five (5) years:

1. All CEMS data, including the date, place, and time of sampling or measurement; parameters sampled or measured; and results.

2. Daily 30-day rolling emission rates for NO_X and SO_2, when applicable, for each unit, calculated in accordance with Section IV.

3. A log of each day when a unit does not operate.

4. Records of quality assurance and quality control activities for emissions measuring systems including, but not limited to, any records required by 40 CFR Part 75 and Section IV.

5. Records of all major maintenance activities conducted on ST1, ST2 or ST3, their associated air pollution control equipment, and CEMS.

6. Any other records required by 40 CFR Part 75.

7. A record of a current valid purchase contract, tariff sheet, transportation contract, or other acceptable documentation specifying the maximum total sulfur content of the pipeline natural gas. This record shall be updated annually.

B. Reporting

[A.A.C. R18-2-306.A.3.c]

1. The Permittee shall notify the Director and EPA Region 9 within two weeks after completion of installation of combustion controls or Selective Non-Catalytic Reactors on any of the units subject to this Attachment.

2. Within 30 days after the applicable compliance date(s) in Conditions II.B, III.B, III.C and III.D, and within 30 days of every second calendar quarter thereafter (i.e., semi-annually), the Permittee shall submit a report that lists the daily 30-day rolling emission rates for NO_X and SO_2 for each unit, calculated in accordance with Section IV of this Attachment. Included in this report shall be the results of any relative accuracy test audit performed during the two preceding calendar quarters. The Permittee may request, and the Department may authorize in writing, different semiannual reporting dates to harmonize with other semiannual reporting under the then-effective permit.

C. Equipment Operations.

[A.A.C. R18-2-306.A.2]

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the unit including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. Pollution control equipment shall be designed and capable of operating properly to minimize emissions during all expected operating Conditions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited

to, monitoring results, review of operating and maintenance procedures, and inspection of the unit.

D. Affirmative Defense for Malfunctions

The following regulations are incorporated by reference and made part of this permit and state implementation plan:

1. R18–2–101, paragraph 65;

2. R18–2–310, sections (A), (B), (D) and (E) only; and

3. R18–2–310.01.

E. Definitions

Terms not defined below shall have the meaning given to them in the Clean Air Act or the Department's regulations implementing the Clean Air Act. For purposes of this Attachment:

Boiler-operating day:

Means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the unit. For Steam Unit 1, boiler operating day does not include any day in which the only operation is the combined warming/drying operation with Gas Turbine 1 as defined in Condition II.A.2.b. For purposes of the limit in Condition II.B.4, "boiler operating days" shall include only those days during which Steam Unit 1 operates in stand-alone mode. For purposes of the limit in Condition II.B.5, "boiler operating days" shall include only those days during which Steam Unit 1 and Gas Turbine 1 operate in combined cycle mode.

Flue Gas Desulfurization System or FGD:

Means a pollution control device that employs flue gas desulfurization technology, including an absorber utilizing lime, fly ash, or limestone slurry, for the reduction of sulfur dioxide emissions.

Operating Hour:

Means any hour that fossil fuel is fired in the unit, except that for Steam Unit 1, operating hour does not include any hour in which the only operation is the combined warming/drying operation with Gas Turbine 1 as defined in Condition II.B.2.b.

Valid Data:

Means data recorded when the CEMS is not out-of-control as defined by Part 75.